
Shell

MATERIAL SAFETY DATA SHEET

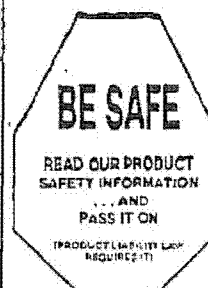
MSDS NUMBER ▶

56,260-6

PAGE 1

97367 (4-85)

24 HOUR EMERGENCY ASSISTANCE			GENERAL MSDS ASSISTANCE		
SHELL: 713-473-9461 CHEMTREC: 800-424-9300			SHELL: 713-241-4819		
ACUTE HEALTH +	FIRE 1	REACTIVITY 0	HAZARD RATING ▶		
1	1	0	LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4		
*For acute and chronic health effects refer to the discussion in Section III					



SECTION I		NAME
PRODUCT ▶	SHELL DARINA(R) GREASE AX	
CHEMICAL NAME ▶	LUBRICATING GREASE	
CHEMICAL FAMILY ▶	HYDROCARBON	
SHELL CODE ▶	70330	

SECTION II-A		PRODUCT/INGREDIENT	
NO.	COMPOSITION	CAS NUMBER	PERCENT
P	SHELL DARINA GREASE AX	MIXTURE	100
1	SEVERLY HYDROTREATED HEAVY NAPHTHENIC DISTILLATES	64742-52-5	65.0
2	SOLVENT REFINED, HYDROTREATED RESIDUAL OIL	64742-57-0	25.0
3	INORGANIC CLAY	1302-78-9	5.0
4	FATTY ACID AMIDE	68910-93-0	4.0
5	SODIUM NITRITE	7632-00-0	<1.0
6	OTHER COMPONENTS	MIXTURE	<0.1

SECTION II-B		ACUTE TOXICITY DATA	
NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50



AGCS2N000012

626569

P NOT AVAILABLE

BASED UPON DATA AVAILABLE TO SHELL, COMPONENT NO. 6 IN THIS PRODUCT IS NOT HAZARDOUS UNDER OSHA HAZARD COMMUNICATION (29 CFR 1910.1200).

SECTION III

HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT

MAY BE MILDLY IRRITATING TO THE EYES.

SKIN CONTACT

PROLONGED OR REPEATED CONTACT MAY CAUSE VARIOUS SKIN DISORDERS SUCH AS DERMATITIS, FOLLICULITIS OR OIL ACNE. RELEASE DURING HIGH PRESSURE USAGE MAY RESULT IN INJECTION OF OIL INTO THE SKIN CAUSING LOCAL NECROSIS.

INHALATION

NO SPECIFIC INFORMATION IDENTIFIED.

PRODUCT NAME: SHELL DARINA(R) GREASE AX

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SECTION VII

PHYSICAL DATA

BOILING POINT: NOT AVAILABLE
(DEG F)SPECIFIC GRAVITY: NOT AVAILABLE
(H2O=1)VAPOR PRESSURE: NOT AVAILABLE
(MM HG)MELTING POINT: NOT AVAILABLE
(DEG F)SOLUBILITY: INSOLUBLE
(IN WATER)VAPOR DENSITY: NOT AVAILABLE
(AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): NOT AVAILABLE

APPEARANCE AND ODOR:
BROWN, SMOOTH, SLIGHT ODOR.

SECTION VIII

FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
221 DEG C, PMCC (BASE OIL)FLAMMABLE LIMITS % VOLUME IN AIR
LOWER: N/AV UPPER: N/AV

EXTINGUISHING MEDIA

USE WATER FOG, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

DO NOT ENTER CONFINED FIRE SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT INCLUDING A NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS SURROUNDING EQUIPMENT AND STRUCTURES WITH WATER.

SECTION IX

REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:

AVOID HEAT, OPEN FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS

THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON

AGCS2N000014

COMBUSTION.

SECTION X

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
NOT ORDINARILY REQUIRED.

PROTECTIVE CLOTHING
USE OIL RESISTANT GLOVES AND OTHER CLOTHING AS NEEDED TO MINIMIZE SKIN CONTACT.

SECTION XI

ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES
SCOOP UP EXCESS GREASE. CLEAN AREA WITH APPROPRIATE CLEANER.

PRODUCT NAME: SHELL DARINA(R) GREASE AX

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INGESTION

NO SPECIFIC INFORMATION IDENTIFIED.

SIGNS AND SYMPTOMS

IRRITATION AS NOTED ABOVE. LOCAL NECROSIS IS EVIDENCED BY DELAYED ONSET OF PAIN AND TISSUE DAMAGE A FEW HOURS FOLLOWING INJECTION.

AGGRAVATED MEDICAL CONDITIONS

PREEXISTING SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

OTHER HEALTH EFFECTS

THIS SPECIFIC PRODUCT HAS NOT BEEN TESTED IN LONG-TERM, CHRONIC EXPOSURE TESTS. LUBRICATING GREASES ARE GENERALLY CONSIDERED TO BE OF A LOW ORDER OF ACUTE TOXICITY TO HUMANS AND EXPERIMENTAL ANIMALS. HOWEVER, THE HANDLING PROCEDURES AND SAFETY PRECAUTIONS IN THIS MSDS SHOULD BE FOLLOWED TO MINIMIZE EMPLOYEE'S EXPOSURE.

SECTION IV**OCCUPATIONAL EXPOSURE LIMITS**

NO.	PEL/TWA	OSHA PEL/CEILING	TLV/TWA	ACGIH TLV/STEL	OTHER
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NO OSHA/PEL OR ACGIH/TLV HAS BEEN ESTABLISHED.

SECTION V**EMERGENCY AND FIRST AID PROCEDURES****EYE CONTACT**

FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT

REMOVE CONTAMINATED CLOTHING AND WIPE EXCESS OFF. WASH WITH SOAP AND WATER OR A WATERLESS HAND CLEANER FOLLOWED BY SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. IF MATERIAL IS INJECTED UNDER THE SKIN, GET MEDICAL ATTENTION PROMPTLY TO PREVENT SERIOUS DAMAGE; DO NOT WAIT FOR SYMPTOMS TO DEVELOP.

INHALATION

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

INGESTION

DO NOT INDUCE VOMITING. IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ADVICE."

NOTE TO PHYSICIAN

*NOTE TO THE PHYSICIAN: IN GENERAL, EMESIS INDUCTION IS UNNECESSARY IN HIGH VISCOSITY, LOW VOLATILITY PRODUCTS. I.E., MOST OILS AND GREASES.

SECTION VI

SUPPLEMENTAL HEALTH INFORMATION

NORMAL USE OF THIS PRODUCT SHOULD NOT RESULT IN OVEREXPOSURE TO COMPONENT 6, SODIUM NITRITE. HOWEVER, IN CASE OF ACCIDENTAL INGESTION, SODIUM NITRITE MAY ALTER THE BLOOD (HEMOGLOBIN) TO REDUCE OXYGEN CARRYING CAPACITY; CYANOSIS (BLUISH SKIN), SHORTNESS OF BREATH, PALPITATIONS, COMA AND/OR DEATH MAY OCCUR.

PRODUCT NAME: SHELL DARINA(R) GREASE AX

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PAGE 4

SECTION XII SPECIAL PRECAUTIONS

STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.

MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. PROPERLY DISPOSE OF CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, THAT CANNOT BE DECONTAMINATED.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
NOT HAZARDOUS BY D.O.T. REGULATIONS

SECTION XIV OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES. IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EDS SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION

THIS INFORMATION IS BEING SYSTEMATICALLY ADDED TO OUR MSDS. IT HAS PREVIOUSLY BEEN PROVIDED TO YOU IN VARIOUS WAYS, INCLUDING THE MSDS. THE NEW MSDS FORMAT IS INTENDED TO PROVIDE THE USER WITH THE INFORMATION IN A MORE CONVENIENT MANNER.

SECTION XVI SPECIAL NOTES

REVISIONS WERE MADE IN SECTION XV.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT.
WEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE
RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE
USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: MARCH 26, 1991

BE SAFE

READ OUR PRODUCT
SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW
REQUIRES IT)

G. A. VAN GELDER

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX 77210

OverlakeOil

P.O. Box 506 Kirkland WA 98083-0506
206-822-1776 800-PAC-PRIDE
206-827-5791 FAX 800-722-7743



Shell Oil Fuel and
Lubricating Products



An independent franchisee of
PACIFIC PRIDE — The Commercial
Fueling System

FAX COVER LETTER

DATE:

August 17 1995

ATTENTION:

Gerry

COMPANY:

West Grove Cement

FROM:

Kathy

FAX NUMBER:

206-623-5355

NUMBER OF COPIES:

5

(Including Cover)

COMMENTS:

Hope this will help you!
Have a Great Day!

OK
Emergency Number (800)457-2022 or (510)233-3737



Material Safety Data Sheet

CHEVRON Black Pearl Grease EP NLGI 2

CPS254591

Page 1 of 7

ASH GROVE CEMENT
ATTN: STAN
3801 E MARGINAL WAY
SEATTLE, WA 98134

Print Date: July 08, 1992

This Material Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information incorporated in your MSDS. Discard any previous edition of this MSDS.

Revised to reflect name change from Black Pearl Grease EP NLGI 2 to Chevron Black Pearl Grease EP NLGI 2.

1. PRODUCT IDENTIFICATION

CHEVRON Black Pearl Grease EP NLGI 2

PRODUCT NUMBER(S): CPS254591
PRODUCT INFORMATION: (800)582-3835

Revision Number: 1 Revision Date: 12/03/91 MSDS Number: 004942
NDA - No Data Available NA - Not Applicable

Prepared According to the OSHA Hazard Communication
Standard (29 CFR 1910.1200) by the Chevron Environmental
Health Center, Inc., P.O. Box 4054, Richmond, CA 94804.

AGCS2N000021

2. FIRST AID - EMERGENCY NUMBER (800)457-2022 OR (510)233-3737

EYE CONTACT:

No first aid procedures are required. However, as a precaution flush eyes with fresh water for 15 minutes. Remove contact lenses if worn.

SKIN CONTACT:

No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

Note to Physician: In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

INHALATION:

Since this material is not expected to be an immediate inhalation problem, no first aid procedures are required.

INGESTION:

Not expected to be an ingestion problem, no first aid procedures are required.

3. IMMEDIATE HEALTH EFFECTS - (ALSO SEE SECTIONS 11 & 12)

EYE CONTACT:

This substance is not expected to cause prolonged or significant eye irritation. This hazard evaluation is based on the data from similar materials.

SKIN IRRITATION:

This substance is not expected to cause prolonged or significant skin irritation.

DERMAL TOXICITY:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin. This hazard evaluation is based on data from similar materials.

High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

RESPIRATORY/INHALATION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if inhaled. This hazard evaluation is based on data from similar materials.

INGESTION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed. This

Revision Number: 1

Revision Date: 12/03/91

MSDS Number: 004942

NDA - No Data Available

NA - Not Applicable

hazard evaluation is based on data from similar materials.

4. PROTECTIVE EQUIPMENT

EYE PROTECTION:

No special eye protection is usually necessary.

SKIN PROTECTION:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

RESPIRATORY PROTECTION:

No special respiratory protection is normally required.

VENTILATION:

No special ventilation is necessary.

5. FIRE PROTECTION

FLASH POINT: NDA

AUTOIGNITION: NDA

FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA:

CO2, dry chemical, foam and water fog.

NEPA RATINGS: Health 0; Flammability 1; Reactivity 0; Special NDA;

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association or, if applicable, the National Paint and Coating Association, and do not necessarily reflect the hazard evaluation of the Chevron Environmental Health Center. Read the entire document and label before using this product.

FIRE FIGHTING PROCEDURES:

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide, water vapor and may produce oxides of nitrogen. Incomplete combustion can produce carbon monoxide.

6. STORAGE, HANDLING, AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:

NDA

STABILITY:

Stable.

HAZARDOUS POLYMERIZATION:

Polymerization will not occur.

INCOMPATIBILITY:

May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Revision Number: 1

Revision Date: 12/03/91

MSDS Number: 004942

NDA - No Data Available

NA - Not Applicable

SPECIAL PRECAUTIONS:

DO NOT weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently.

CAUTION! Do not use pressure to empty drum or drum may rupture with explosive force.

7. PHYSICAL PROPERTIES

SOLUBILITY: Soluble in hydrocarbon solvents; insoluble in water.

APPEARANCE: Dark black grease.

BOILING POINT: NA

MELTING POINT: 245C (470F)

EVAPORATION: NA

SPECIFIC GRAVITY: 0.95 @ 15.6/15.6C

VAPOR PRESSURE: <1 mm Hg @ 40C

PERCENT VOLATILE (VOLUME %): NA

VAPOR DENSITY (AIR=1): NA

VISCOSITY: 13.5 cSt @ 100C (Min.)

8. ENVIRONMENTAL CONCERNS, SPILL RESPONSE AND DISPOSAL

CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300 (24 hour).

SPILL/LEAK PRECAUTIONS:

This material is not expected to present any environmental problem.

Clean up spills immediately, observing precautions in Protective Equipment section.

DISPOSAL METHODS:

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

9. EXPOSURE STANDARDS, REGULATORY LIMITS AND COMPOSITION

COMPOSITION COMMENT:

All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

The percent compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.

PERCENT/CAS# COMPONENT/REGULATORY LIMITS

100.0 % CHEVRON Black Pearl Grease EP NLGI 2

CONTAINING

Revision Number: 1

Revision Date: 12/03/91

MSDS Number: 004942

NDA - No Data Available

NA - Not Applicable

Emergency Number (800)457-2022 or (510)233-3737



Material Safety Data Sheet

CHEVRON Black Pearl Grease EP NLGI 2

CPS254591

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RESPIRATORY/INHALATION:

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INGESTION:

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Revision Number: 1

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RESPIRATORY PROTECTION:

No special respiratory protection is normally required.

VENTILATION:

No special ventilation is necessary.

5. FIRE PROTECTION

FLASH POINT: NDA

AUTOIGNITION: NDA

FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA:

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NDA

STABILITY:

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HAZARDOUS POLYMERIZATION:

Polymerization will not occur.

INCOMPATIBILITY:

May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Revision Number: 1

Revision Date: 12/03/91

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NA - Not Applicable

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CAUTION! Do not use pressure to empty drum or drum may rupture with explosive force.

7. PHYSICAL PROPERTIES

SOLUBILITY: Soluble in hydrocarbon solvents; insoluble in water.

APPEARANCE: Dark black grease.

BOILING POINT: NA

MELTING POINT: 245C (470F)

EVAPORATION: NA

SPECIFIC GRAVITY: 0.95 @ 15.6/15.6C

VAPOR PRESSURE: <1 mm Hg @ 40C

PERCENT VOLATILE (VOLUME %): NA

VAPOR DENSITY (AIR=1): NA

VISCOSITY: 13.5 cSt @ 100C (Min.)

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COMPOSITION COMMENT:

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PERCENT/CAS# COMPONENT/REGULATORY LIMITS

100.0 % CHEVRON Black Pearl Grease EP NLGI 2

CONTAINING

Revision Number: 1

Revision Date: 12/03/91

MSDS Number: 004942

NDA - No Data Available

NA - Not Applicable

> 75.0 % LUBRICATING BASE OIL CONTAINING ONE OR MORE OF THE FOLLOWING

CAS64741964 DISTILLATES, SOLVENT REFINED HEAVY NAPHTHENIC
5mg/m3 mist ACGIH TLV
10mg/m3 mist ACGIH STEL
5mg/m3 mist OSHA TWA

CAS64742525 DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC
5 mg/m3 mist ACGIH TLV
10mg/m3 mist ACGIH STEL
5mg/m3 mist OSHA TWA

CAS64742547 DISTILLATES, HYDROTREATED HEAVY PARAFFINIC
5mg/3 mist ACGIH TLV
10mg/m3 mist ACGIH STEL
5mg/m3 mist OSHA TWA

< 25.0 % ADDITIVES INCLUDING THE FOLLOWING

1.0 % CALCIUM HYDROXIDE
CAS1305620 5mg/m3 ACGIH TLV
5mg/m3 OSHA TWA

0.2 % TRIMETHYLDIHYDROQUINOLINE POLYMER (TDQ)
CAS26780961

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	TPQ - Threshold Planning Quantity
RQ - Reportable Quantity	CPS - CUSA Product Code
CC - Chevron Chemical Company	CAS - Chemical Abstract Service Number

10. REGULATORY INFORMATION

DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE
FEDERAL DOT

DOT HAZARD CLASS: NOT APPLICABLE

DOT IDENTIFICATION NUMBER: NOT APPLICABLE

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects; NO
2. Delayed (Chronic) Health Effects; NO
3. Fire Hazard; NO
4. Sudden Release of Pressure Hazard; NO
5. Reactivity Hazard; NO

The following components of this material are found on the regulatory
lists indicated by the number below the component name:

CALCIUM HYDROXIDE

is found on lists: 02,10,11,13,14,17,28,

DISTILLATES, SOLVENT REFINED HEAVY NAPHTHENIC

is found on lists: 14,15,17,

Revision Number: 1

Revision Date: 12/03/91

MSDS Number: 004942

NDA - No Data Available

NA - Not Applicable

DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC
is found on lists: 14,15,17,
DISTILLATES, HYDROTREATED HEAVY PARAFFINIC
is found on lists: 14,15,17,

REGULATORY LISTS SEARCHED:

01=SARA 313	02=MASS RTK	03=NTP Carcinogen
04=CA Prop. 65	05=MI 406	06=IARC Group 1
07=IARC Group 2A	08=IARC Group 2B	09=SARA 302/304
10=PA RTK	11=NJ RTK	12=CERCLA 302.4
13=MN RTK	14=ACGIH TLV	15=ACGIH STEL
16=ACGIH Calculated TLV	17=OSHA TWA	18=OSHA STEL
19=Chevron TLV	20=EPA Carcinogen	21=TSCA Sect 4(e)
22=TSCA Sect 5(a)(e)(f)	23=TSCA Sect 6	24=TSCA Sect 12(b)
25=TSCA Sect 8(a)	26=TSCA Sect 8(d)	28=Canadian WHMIS
29=OSHA CEILING		

11. PRODUCT TOXICOLOGY DATA

EYE IRRITATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

SKIN IRRITATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

DERMAL TOXICITY:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

RESPIRATORY/INHALATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

INGESTION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

12. ADDITIONAL HEALTH DATA

ADDITIONAL HEALTH DATA COMMENT:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

Revision Number: 1

Revision Date: 12/03/91

MSDS Number: 004942

NDA - No Data Available

NA - Not Applicable

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

01

01

01



Date Issued: 01-04-95
Supersedes: 11-30-94

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:

02905 NOVATEX GREASE EP 2

Chemical Name and/or Family or Description:

Industrial Greases

Manufacturer's Name and Address:

TEXACO LUBRICANTS COMPANY

A DIVISION OF TEXACO REFINING AND MARKETING INC.

P.O. Box 4427

Houston, TX 77210-4427

Telephone Numbers:

Transportation Emergency-Company : (914) 831-3400

CHEMTREC : (800) 424-9300

Health Emergency -Company : (914) 831-3400

General MSDS Assistance : (914) 838-7204

Technical Information -Fuels : (914) 838-7336

-Chemical : (512) 459-6543

-Lubricant/: (800) 782-7852

Antifreezes

-Additives : (713) 235-6278

-Solvents : (800) 876-3738

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0 % OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0 % OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component(s) Carcinogenic According to:

OSHA	IARC	NTP	OTHER	NONE
-	-	-	-	X

Composition: (Sequence Number and Chemical Name)

Seq.	Chemical Name	CAS Number	Range in %
01	# Hydrotreated heavy naphthenic petroleum distillates	64742-52-5	65.00-79.99
02	Calcium 12-hydroxystearate	3159-62-4	3.00-9.99
03	# Hydrotreated light naphthenic petroleum distillates	64742-53-6	3.00-9.99
04	# Asphalt	8052-42-4	1.00-2.99
05	# Zinc dialkyldithiophosphate	68649-42-3	1.00-2.99

PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

Exposure Limits referenced by Sequence Number in the Composition Section

Seq.	Limit
01	5 mg/m3 TWA-OSHA (MINERAL OIL MIST)
01	5 mg/m3 TWA-ACGIH (MINERAL OIL MIST)
01	10 mg/m3 STEL ACGIH (MINERAL OIL MIST)
03	5 mg/m3 TWA-OSHA (MINERAL OIL MIST)
03	5 mg/m3 TWA-ACGIH (MINERAL OIL MIST)
03	10 mg/m3 STEL ACGIH (MINERAL OIL MIST)
04	5.0 mg/m3 TWA-ACGIH-(FUME)

PAGE: 1

N.D. - NOT DETERMINED

< - LESS THAN

N.A. - NOT APPLICABLE

> - GREATER THAN

N.T. - NOT TESTED



PRODUCT CODE: 02806
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:
Black buttery substance
Odor:
Odorless

WARNING STATEMENT

NONE CONSIDERED NECESSARY

HMIS		NFPA	
Health: 0	Reactivity: 0	Health: 0	Reactivity: 0
Flammability: 1	Special: -	Flammability: 1	Special: -

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	-	-

EFFECTS OF OVEREXPOSURE

Acute:

Eyes:

May cause minimal irritation, experienced as temporary discomfort.

Skin:

Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, seen as local redness with possible mild discomfort.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects.

Inhalation:

Product not volatile at ambient temperatures. Vapors or mist in high concentrations, as generated from spraying or heating in an enclosed space, may cause minimal irritation.

Ingestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data.

Medical Conditions Aggravated by Exposure:

Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

Material from high pressure equipment, pinhole leaks, or high pressure line failure can penetrate the skin and, if not properly treated, can cause severe injury, including disfigurement, loss of function, or even require amputation of the affected area. To prevent such serious injury, immediate medical attention should be sought even if the injection injury appears to be minor.

When overheated, product may release hydrogen sulfide (H₂S) gas. H₂S concentrations above permissible concentrations can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomiting, diarrhea and pulmonary edema. At concentrations above 300 ppm, respiratory paralysis, causing unconsciousness and death, can occur.

4. FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

PAGE: 2

N.D. - NOT DETERMINED
< - LESS THAN

N.A. - NOT APPLICABLE
> - GREATER THAN

N.T. - NOT TESTED



PRODUCT CODE: 02905
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-84

4. FIRST AID MEASURES (CONT)

Skin:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation, headache, or drowsiness occurs, remove to fresh air.

Other Instructions:

High pressure injection of material can cause severe injury. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or may require amputation of the affected area.

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

5. FIRE-FIGHTING MEASURES

Ignition Temperature (degrees F):

Not determined.

Flash Point (degrees F):

Not determined.

Flammable Limits (%):

Lower: Not determined.

Upper: Not determined.

Recommended Fire Extinguishing Agents And Special Procedures:

Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

Unusual or Explosive Hazards:

Hydrogen sulfide (H₂S) may be released if overheated.

Special Protective Equipment for Firefighters:

No special equipment or procedures required.

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills: CHEMTREC (800)424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:

Contain spill if possible, contain with absorbent materials such as clay or soil, and shovel up. Avoid skin and eye contact.

7. HANDLING AND STORAGE

Precautions to be Taken in

Handling:

Minimum feasible handling temperatures should be maintained.

Storage:

Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

PAGE: 3

N.D. - NOT DETERMINED

N.A. - NOT APPLICABLE

N.T. - NOT TESTED

< - LESS THAN

> - GREATER THAN



PRODUCT CODE: 02905
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-85
Supersedes: 11-30-84

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT)

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Ventilation:

Adequate to meet component occupational exposure limits (see Section 2).

Exposure Limit for Total Product:

None established for product; refer to Section 2 for component exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Black buttery substance

Odor:

Odorless

Boiling Point (degrees F):

Not determined.

Melting/Freezing point (degrees F):

Not applicable.

Specific Gravity (water=1):

Not determined.

~~pH~~ pH of undiluted product:
Not applicable.

Vapor Pressure:

< .1 mmHg

Viscosity:

Not determined.

VOC Content:

Not determined.

Vapor Density (air=1):

Not applicable.

Solubility in Water (%):

< .1

Other: None

10. STABILITY AND REACTIVITY

This Material Reacts Violently With:

(If Others is checked below, see comments for details)

Air Water Heat Strong Oxidizers Others None of These

Comments:

Under extreme temperatures or extended storage periods, hydrogen sulfide (H₂S) gas may accumulate in the head-space of container.

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of calcium, phosphorus, sulfur (may include hydrogen sulfide), zinc.

Hazardous Polymerizations: DO NOT OCCUR

PAGE: 4

N.D. - NOT DETERMINED
< - LESS THAN

N.A. - NOT APPLICABLE
> - GREATER THAN

N.T. - NOT TESTED



PRODUCT CODE: 02805
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-84

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose

Oral:

LD50 Believed to be > 5.00 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 Believed to be > 3.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Believed to be < .50 / 8.0 (rabbit) no appreciable effect

Eyes:

(Draize) Believed to be < 15.00 / 110 (rabbit) no appreciable effect

Sensitization:

Not determined.

Other:

Some low viscosity naphthenic oils have caused skin irritation and skin tumors in laboratory animals when repeatedly applied and left in place between applications. The significance of this effect to humans has not been established.

12. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Remarks

None

13. TRANSPORT INFORMATION

Transportation

DOT:

Proper Shipping Name:
Not regulated

IMDG:

Proper Shipping Name:
Not evaluated

ICAO:

Proper Shipping Name:
Not evaluated

TDG:

Proper Shipping Name:
Not evaluated

14. REGULATORY INFORMATION

Federal Regulations:

SARA Title III:

Section 302/304 Extremely Hazardous Substances

Seq.	Chemical Name	CAS Number	Range in %
None			

Section 302/304 Extremely Hazardous Substances (CONT)

Seq.	TPQ	RQ
None		

Section 311 Hazardous Categorization:

Acute	Chronic	Fire	Pressure	Reactive	N/A
-	-	-	-	-	X

PAGE: 6

N.D. - NOT DETERMINED
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PRODUCT CODE: 02808
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

14. REGULATORY INFORMATION (CONT)

Section 313 Toxic Chemical

Chemical Name	CAS Number	Concentration
Zinc dialkyldithiophosphate	68649-42-3	1.00-2.99

CERCLA 102(a)/DOT Hazardous Substances: (+ indicates DOT Hazardous Substance)

Seq. Chemical Name	CAS Number	Range in %
None		

CERCLA/DOT Hazardous Substances (Sequence Numbers and RQ's):

Seq. RQ
None

TSCA Inventory Status:

This product is listed on the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Other:

None.

State Regulations:

California Proposition 65:

The following detectable components of this product are substances, or belong to classes of substances, known to the State of California to cause cancer and/or reproductive toxicity.

Chemical Name	CAS Number
None	

States Right-to-know Regulations:

Chemical Name	State Right-to-know
Zinc dialkyldithiophosphate	CT, IL, LA, NJ, MI
Isopropyl alcohol	CT, FL, IL, LA, NJ, PA, RI
Asphalt	CT, FL, IL, LA, NJ, PA, RI

State list: CT (Connecticut), FL (Florida), IL (Illinois), MI (Michigan)
LA (Louisiana), MA (Massachusetts), NJ (New Jersey),
PA (Pennsylvania), RI (Rhode Island).

International Regulations:

Export Notification (TSCA-12b):

This product may be subject to export notification under TSCA section 12(b); contains:
Isopropyl alcohol

WHMIS Classification:

Not determined

Canada Inventory Status:

N.D.

EINECS Inventory Status:

N.D.

Australia Inventory Status:

N.D.

Japan Inventory Status:

N.D.

15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not evaluated.

PAGE: 8

N.D. - NOT DETERMINED

N.A. - NOT APPLICABLE

N.T. - NOT TESTED

< - LESS THAN

> - GREATER THAN



PRODUCT CODE: 02805
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

15. ENVIRONMENTAL INFORMATION (CONT)

Remarks:
Not evaluated.

16. OTHER INFORMATION

None

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY. PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Since the last mailing for this customer code, the following sections have been revised:
2, 16, 17.

Date: 01-04-95 New ☒ Revised, Supersedes: 11-30-94
Date printed: 01-16-95

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL

PAGE: 7

N.D. - NOT DETERMINED
< - LESS THAN

N.A. - NOT APPLICABLE
> - GREATER THAN

N.T. - NOT TESTED



PRODUCT CODE: 02905
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

17. PRODUCT LABEL

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

02905 NOVATEX GREASE EP 2

WARNING STATEMENT

NONE CONSIDERED NECESSARY

PRECAUTIONARY MEASURES

- Avoid prolonged breathing of vapor, mist, or gas.
- Workers should wash exposed skin several times daily with soap and water.

FIRST AIDEye Contact:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin Contact:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation, headache, or drowsiness occurs, remove to fresh air.

Note to Physician:

High pressure injection of material can cause severe injury. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or may require amputation of the affected area.

FIRE

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may cause frothing. Use water spray to cool fire-exposed containers.

	Chemical Name	CAS Number	Range in %
#	Hydrotreated heavy naphthenic petroleum distillates	64742-52-5	65.00-79.99
	Calcium 12-hydroxystearate	3159-62-4	3.00-9.99
#	Hydrotreated light naphthenic petroleum distillates	64742-53-6	3.00-9.99
*	Asphalt	8052-42-4	1.00-2.99
*	Zinc dialkylidithiophosphate	68649-42-3	1.00-2.99

PRODUCT IS NON HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

* COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

Pennsylvania Special Hazardous Substance(s)	CAS Number	Range in %
None		

HMIS			NFPA		
Health:	0	Reactivity: 0	Health:	0	Reactivity: 0
Flammability: 1	Special: -		Flammability: 1	Special: -	

TransportationDOT:

Proper Shipping Name:
Not regulated

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

PAGE: 8

N.D. - NOT DETERMINED
< - LESS THAN

N.A. - NOT APPLICABLE
> - GREATER THAN

N.T. - NOT TESTED



PRODUCT CODE: 02005
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-84

17. PRODUCT LABEL (CONT)

Manufacturer's Name and Address:
TEXACO LUBRICANTS COMPANY
A DIVISION OF TEXACO REFINING AND MARKETING INC.
P.O. Box 4427
Houston, TX 77210-4427

TRANSPORTATION EMERGENCY Company: (914) 831-3400
CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400



Date Issued: 01-04-95
Supersedes: 11-30-94

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:

02905 NOVATEX GREASE EP 2

Chemical Name and/or Family or Description:

Industrial Greases

Manufacturer's Name and Address:

TEXACO LUBRICANTS COMPANY

A DIVISION OF TEXACO REFINING AND MARKETING INC.

P.O. Box 4427

Houston, TX 77210-4427.

Telephone Numbers:

Transportation Emergency-Company : (914) 831-3400

CHEMTREC : (800) 424-9300

Health Emergency -Company : (914) 831-3400

General MSDS Assistance : (914) 838-7204

Technical Information -Fuels : (914) 838-7336

-Chemical : (512) 459-6543

-Lubricant/: (800) 782-7852

Antifreezes

-Additives : (713) 235-6278

-Solvents : (800) 876-3738

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0 % OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0 % OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component(s) Carcinogenic According to:

OSHA IARC NTP OTHER NONE

X

Composition: (Sequence Number and Chemical Name)

Seq.	Chemical Name	CAS Number	Range in %
01 *	Hydrotreated heavy naphthenic petroleum distillates	64742-52-5	65.00-79.99
02	Calcium 12-hydroxystearate	3159-62-4	3.00-9.99
03 *	Hydrotreated light naphthenic petroleum distillates	64742-53-6	3.00-9.99
04 *	Asphalt	8052-42-4	1.00-2.99
05 *	Zinc dialkyldithiophosphate	68649-42-3	1.00-2.99

PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

Exposure Limits referenced by Sequence Number in the Composition Section

Seq.	Limit
01	5 mg/m3 TWA-OSHA (MINERAL OIL MIST)
01	5 mg/m3 TWA-ACGIH (MINERAL OIL MIST)
01	10 mg/m3 STEL ACGIH (MINERAL OIL MIST)
03	5 mg/m3 TWA-OSHA (MINERAL OIL MIST)
03	5 mg/m3 TWA-ACGIH (MINERAL OIL MIST)
03	10 mg/m3 STEL ACGIH (MINERAL OIL MIST)
04	5.0 mg/m3 TWA-ACGIH-(FUME)

PAGE: 1

N.D. - NOT DETERMINED

N.A. - NOT APPLICABLE

N.T. - NOT TESTED

< - LESS THAN

> - GREATER THAN



PRODUCT CODE: 02905
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:
Black buttery substance
Odor:
Odorless

WARNING STATEMENT

NONE CONSIDERED NECESSARY

HMIS		NFPA	
Health: 0	Reactivity: 0	Health: 0	Reactivity: 0
Flammability: 1	Special: -	Flammability: 1	Special: -

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	-	-

EFFECTS OF OVEREXPOSURE

Acute:

Eyes:

May cause minimal irritation, experienced as temporary discomfort.

Skin:

Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, soon as local redness with possible mild discomfort.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects.

Inhalation:

Product not volatile at ambient temperatures. Vapors or mist in high concentrations, as generated from spraying or heating in an enclosed space, may cause minimal irritation.

Ingestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data.

Medical Conditions Aggravated by Exposure:

Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

Material from high pressure equipment, pinhole leaks, or high pressure line failure can penetrate the skin and, if not properly treated, can cause severe injury, including disfigurement, loss of function, or even require amputation of the affected area. To prevent such serious injury, immediate medical attention should be sought even if the injection injury appears to be minor.

When overheated, product may release hydrogen sulfide (H₂S) gas. H₂S concentrations above permissible concentrations can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomiting, diarrhea and pulmonary edema. At concentrations above 300 ppm, respiratory paralysis, causing unconsciousness and death, can occur.

4. FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

PAGE: 2

N.D. - NOT DETERMINED
< - LESS THAN

N.A. - NOT APPLICABLE
> - GREATER THAN

N.T. - NOT TESTED



PRODUCT CODE: 02805
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

4. FIRST AID MEASURES (CONT)

Skin:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation, headache, or drowsiness occurs, remove to fresh air.

Other Instructions:

High pressure injection of material can cause severe injury. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or may require amputation of the affected area.

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

5. FIRE-FIGHTING MEASURES

Ignition Temperature (degrees F):

Not determined.

Flash Point (degrees F):

Not determined.

Flammable Limits (%):

Lower: Not determined.

Upper: Not determined.

Recommended Fire Extinguishing Agents And Special Procedures:

Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

Unusual or Explosive Hazards:

Hydrogen sulfide (H₂S) may be released if overheated.

Special Protective Equipment for Firefighters:

No special equipment or procedures required.

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills: CHEMTREC (800)424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:

Contain spill if possible, contain with absorbent materials such as clay or soil, and shovel up. Avoid skin and eye contact.

7. HANDLING AND STORAGE

Precautions to be Taken in

Handling:

Minimum feasible handling temperatures should be maintained.

Storage:

Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

PAGE: 3

N.D. - NOT DETERMINED

N.A. - NOT APPLICABLE

N.T. - NOT TESTED

< - LESS THAN

> - GREATER THAN



PRODUCT CODE: 02805
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT)

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Ventilation:

Adequate to meet component occupational exposure limits (see Section 2).

Exposure Limit for Total Product:

None established for product; refer to Section 2 for component exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Black buttery substance

Odor:

Odorless

Boiling Point (degrees F):

Not determined.

Melting/Freezing point (degrees F):

Not applicable.

Specific Gravity (water=1):

Not determined.

☒ pH of undiluted product:

Not applicable.

Vapor Pressure:

< .1 mmHg

Viscosity:

Not determined.

VOC Content:

Not determined.

Vapor Density (air=1):

Not applicable.

Solubility in Water (%):

< .1

Other: None

10. STABILITY AND REACTIVITY

This Material Reacts Violently With:

(If Others is checked below, see comments for details)

Air Water Heat Strong Oxidizers Others None of These

Comments:

Under extreme temperatures or extended storage periods, hydrogen sulfide (H₂S) gas may accumulate in the head-space of container.

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of calcium, phosphorus, sulfur (may include hydrogen sulfide), zinc.

Hazardous Polymerizations: DO NOT OCCUR

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PRODUCT CODE: 02805
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-84

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION(ANIMAL TOXICITY DATA)

Median Lethal Dose

Oral:

LD50 Believed to be > 5.00 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 Believed to be > 3.00 g/kg (rabbit) practically non-toxic

Irritation Index. Estimation of Irritation (Species)

Skin:

(Draize) Believed to be < .50 /8.0 (rabbit) no appreciable effect

Eyes:

(Draize) Believed to be < 15.00 /110 (rabbit) no appreciable effect

Sensitization:

Not determined.

Other:

Some low viscosity naphthenic oils have caused skin irritation and skin tumors in laboratory animals when repeatedly applied and left in place between applications. The significance of this effect to humans has not been established.

12. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Remarks

None

13. TRANSPORT INFORMATION

Transportation

DOT:

Proper Shipping Name:
Not regulated

IMDG:

Proper Shipping Name:
Not evaluated

ICAO:

Proper Shipping Name:
Not evaluated

TDG:

Proper Shipping Name:
Not evaluated

14. REGULATORY INFORMATION

Federal Regulations:

SARA Title III:

Section 302/304 Extremely Hazardous Substances

Seq. Chemical Name

CAS Number

Range in %

None

Section 302/304 Extremely Hazardous Substances (CONT)

Seq. TPO

RO

None

Section 311 Hazardous Categorization:

Acute	Chronic	Fire	Pressure	Reactive	N/A
-	-	-	-	-	X

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PRODUCT CODE: 02905
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

14. REGULATORY INFORMATION (CONT)

Section 313 Toxic Chemical

Chemical Name	CAS Number	Concentration
Zinc dialkylidithiophosphate	68649-42-3	1.00-2.99

CERCLA 102(a)/DOT Hazardous Substances: (+ indicates DOT Hazardous Substance)

Seq.	Chemical Name	CAS Number	Range in %
None			

CERCLA/DOT Hazardous Substances (Sequence Numbers and RQ's):

Seq.	RQ
None	

TSCA Inventory Status:

This product is listed on the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Other:

None.

State Regulations:

California Proposition 65:

The following detectable components of this product are substances, or belong to classes of substances, known to the State of California to cause cancer and/or reproductive toxicity.

Chemical Name	CAS Number
None	

States Right-to-know Regulations:

Chemical Name	State Right-to-know
Zinc dialkylidithiophosphate	CT, IL, LA, NJ, MI
Isopropyl alcohol	CT, FL, IL, LA, NJ, PA, RI
Asphalt	CT, FL, IL, LA, NJ, PA, RI

State list: CT (Connecticut), FL (Florida), IL (Illinois), MI (Michigan)
LA (Louisiana), MA (Massachusetts), NJ (New Jersey),
PA (Pennsylvania), RI (Rhode Island).

International Regulations:

Export Notification (TSCA-12b):

This product may be subject to export notification under TSCA section 12(b); contains:
Isopropyl alcohol

WHMIS Classification:

Not determined

Canada Inventory Status:

N.D.

EINECS Inventory Status:

N.D.

Australia Inventory Status:

N.D.

Japan Inventory Status:

N.D.

15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not evaluated.

PAGE: 6

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PRODUCT CODE: 02905
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15. ENVIRONMENTAL INFORMATION (CONT)

Remarks:
Not evaluated.

16. OTHER INFORMATION

None

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Since the last mailing for this customer code, the following sections have been revised:
2, 16, 17.

Date: 01-04-95 New ☒ Revised. Supersedes: 11-30-94
Date printed: 01-16-95

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL

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N.D. - NOT DETERMINED
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PRODUCT CODE: 02905
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-85
Supersedes: 11-30-84

17. PRODUCT LABEL

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

02905 NOVATEX GREASE EP 2

WARNING STATEMENT

NONE CONSIDERED NECESSARY

PRECAUTIONARY MEASURES

- Avoid prolonged breathing of vapor, mist, or gas.
- Workers should wash exposed skin several times daily with soap and water.

FIRST AID

Eye Contact:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin Contact:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation, headache, or drowsiness occurs, remove to fresh air.

Note to Physician:

High pressure injection of material can cause severe injury. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or may require amputation of the affected area.

FIRE

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may cause frothing. Use water spray to cool fire-exposed containers.

	Chemical Name	CAS Number	Range in %
#	Hydrotreated heavy naphthenic petroleum distillates	64742-52-5	65.00-79.99
	Calcium 12-hydroxystearate	3159-62-4	3.00-9.99
#	Hydrotreated light naphthenic petroleum distillates	64742-53-6	3.00-9.99
*	Asphalt	8052-42-4	1.00-2.99
*	Zinc dialkylidithiophosphate	68649-42-0	1.00-2.99

PRODUCT IS NON HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

* COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

Pennsylvania Special Hazardous Substance(s)	CAS Number	Range in %
None		

HMIS			NFPA		
Health:	0	Reactivity: 0	Health:	0	Reactivity: 0
Flammability:	1	Special: -	Flammability:	1	Special: -

Transportation

DOT:

Proper Shipping Name:
Not regulated

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

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N.D. - NOT DETERMINED
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N.A. - NOT APPLICABLE
> - GREATER THAN

N.T. - NOT TESTED



PRODUCT CODE: 02805
NAME: NOVATEX GREASE EP 2

Date Issued: 01-04-95
Supersedes: 11-30-94

17. PRODUCT LABEL (CONT)

Manufacturer's Name and Address:
TEXACO LUBRICANTS COMPANY
A DIVISION OF TEXACO REFINING AND MARKETING INC.
P.O. Box 4427
Houston, TX 77210-4427

TRANSPORTATION EMERGENCY Company: (914) 831-3400
CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400

ok
Floor Sweep y
This oil

Ref #1

Emergency Number (800)457-2022 or (510)233-3737



3L/G
SF 0.86
7.22.16

Material Safety Data Sheet

CHEVRON Hydraulic Oil AW ISO 68

FLOOR DRY

CPS255673

Page 1 of 7

ASH GROVE CEMENT
ATTN: STAN
3801 E MARGINAL WAY
SEATTLE, WA 98134

Print Date: July 08, 1992

This Material Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information incorporated in your MSDS. Discard any previous edition of this MSDS.

This revision updates Section 1 (Product Identification), Section 5 (Fire Fighting Measures), and Section 6 (Special Precautions).

1. PRODUCT IDENTIFICATION

CHEVRON Hydraulic Oil AW ISO 68

PRODUCT NUMBER(S): CPS255673
PRODUCT INFORMATION: (800)582-3635

Revision Number: 1 Revision Date: 06/03/92 MSDS Number: 004615
NDA - No Data Available NA - Not Applicable

Prepared According to the OSHA Hazard Communication
Standard (29 CFR 1910.1200) by the Chevron Environmental
Health Center, Inc., P.O. Box 4054, Richmond, CA 94804.

X-DOS051 (06-89)

AGCS2N000051

4. PROTECTIVE EQUIPMENT

EYE PROTECTION:

No special eye protection is usually necessary.

SKIN PROTECTION:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

RESPIRATORY PROTECTION:

No special respiratory protection is normally required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standards, the use of an approved respirator is required.

VENTILATION:

Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

5. FIRE FIGHTING MEASURES

SPECIAL NOTES: Leaks/ruptures in high pressure systems using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

FLASH POINT: (COC) 410F (210C) Min.

AUTOIGNITION: NDA

FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA:

CO2, Dry Chemical, Foam and Water Fog.

FIRE FIGHTING PROCEDURES:

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide and water vapor and may produce oxides of sulfur and phosphorus. Incomplete combustion can produce carbon monoxide.

NFPA RATINGS: Health 0; Flammability 1; Reactivity 0; Special NDA; (Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association.

6. STORAGE, HANDLING, AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:

NDA.

STABILITY:

Stable.

Revision Number: 1

Revision Date: 06/03/92

MSDS Number: 004615

NDA - No Data Available

NA - Not Applicable

9. EXPOSURE STANDARDS, REGULATORY LIMITS AND COMPOSITION

COMPOSITION COMMENT:

All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m3, the OSHA PEL is 5 mg/m3.

The percent compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.

PERCENT/CAS# COMPONENT/REGULATORY LIMITS

100.0 % CHEVRON Hydraulic Oil AW ISO 68

CONTAINING

> 99.0 % LUBRICATING BASE OIL
5 mg/m3 mist ACGIH TWA
10 mg/m3 mist ACGIH STEL
5 mg/m3 mist OSHA TWA

The BASE OIL may be a mixture of any of the following: CAS 64741884, CAS 64741895, CAS 64741964, CAS 64741975, CAS 64742014, CAS 64742525, CAS 64742536, CAS 64742547, CAS 64742627, CAS 64742650, or CAS 72623837.

< 1.0 % ADDITIVES

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	TPQ - Threshold Planning Quantity
RQ - Reportable Quantity	CPS - CUSA Product Code
CC - Chevron Chemical Company	CAS - Chemical Abstract Service Number

10. REGULATORY INFORMATION

DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE
FEDERAL DOT

DOT HAZARD CLASS: NOT APPLICABLE

DOT IDENTIFICATION NUMBER: NOT APPLICABLE

SARA 311 CATEGORIES:	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

Revision Number: 1	Revision Date: 06/03/92	MSDS Number: 004615
NDA - No Data Available	NA - Not Applicable	

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Revision Number: 1 Revision Date: 06/03/92 MSDS Number: 004615
NDA - No Data Available NA - Not Applicable

X-DOS021 (01-89)

AGCS2N000054

MATERIAL SAFETY DATA SHEET

DIALA OIL AX

MSDS# 016370201

ORDER# 17322 CUSTOMER: TACOMA, WA

HAZARD RATINGS / EMERGENCY (4 = EXTREME)

* HEALTH: SLIGHT (1) * EYES: SLIGHT (1) * SHELL 713-473-9461 CHEMTREC
800-424-9300 LILYBLAD PET., DIST. 206-572-4402 PETROLEUM HYDROCARBON: INDUSTRIAL
DIELECTRIC OIL 68702, 69702, 68748, 69704 MIXTURE

INGREDIENT COMPOSITION

DIALA OIL AX (MIXTURE . . .) - SOLVENT REFINED HYDROTREATED MIDDLE DISTILLATE (CAS#: 64742-46-7) SEVERELY HYDROTREATED LIGHT NAPHTHENIC DISTILLATE (CAS#: 64742-53-6) BUTYLATED HYDROXY TOLUENE (CAS#: 128-37-0)

HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATIONS STANDARD (29 CFR 1910.1200). EYE CONTACT: BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING. PRODUCT IS PRESUMED TO BE NONIRRITATING TO THE EYES. SKIN CONTACT: BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING. PRODUCT IS PRESUMED TO BE SLIGHTLY IRRITATING TO THE SKIN. PROLONGED AND REPEATED CONTACT MAY RESULT IN VARIOUS SKIN DISORDERS SUCH AS DERMATITIS, FOLLICULITIS OR OIL ACNE. RELEASE DURING HIGH PRESSURE USAGE MAY RESULT IN INJECTION OF OIL INTO THE SKIN CAUSING LOCAL NECROSIS. INHALATION: INHALATION OF VAPORS (GENERATED AT HIGH TEMPERATURES ONLY) OR OIL MIST MAY CAUSE A MILD IRRITATION OF THE MUCOUS MEMBRANES OF THE UPPER RESPIRATORY TRACT. INGESTION: INGESTION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING OF VOMITUS INTO THE LUNGS) MUST BE AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS. SIGNS AND SYMPTOMS: IRRITATION AS NOTED ABOVE. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS (BLuish SKIN); IN SEVERE CASES DEATH MAY OCCUR. LOCAL NECROSIS IS EVIDENCED BY DELAYED ONSET OF PAIN AND TISSUE DAMAGE A FEW HOURS FOLLOWING INJECTION. AGGRAVATED MEDICAL CONDITIONS: PREEXISTING SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. SUPPLEMENTAL HEALTH INFORMATION: AMOCO HAS REPORTED TO THE U.S. EPA PURSUANT TO SECTION 8(E) OF TSCA THAT A SAMPLE OF HYDROTREATED MIDDLE DISTILLATE (CAS REGISTRY NUMBER 64742-46-7) APPLIED REPEATEDLY TO THE SKIN OF EXPERIMENTAL ANIMALS OVER THEIR LIFETIME PRODUCED A WEAK TUMORIGENIC RESPONSE IN THE SKIN. THE FULL REFINING/PROCESS HISTORY OF THIS SAMPLE WAS NOT PROVIDED IN AMOCO'S SUBMISSION.

OCCUPATIONAL EXPOSURE LIMITS

OSHA - PEL/TWA = 5 MG/M3* ACGIH - TLV/TWA = 5 MG/M3* - TLV/STEL = 10 MG/M3* *OIL MIST, MINERAL

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION. EYE CONTACT: FLUSH EYES WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. SKIN CONTACT: REMOVE CONTAMINATED CLOTHING/SHOES AND WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. IF MATERIAL IS INJECTED UNDER THE SKIN, GET MEDICAL ATTENTION PROMPTLY TO PREVENT SERIOUS INJURY. INGESTION: DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION. NOTE TO PHYSICIAN: IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

PHYSICAL DATA

BOILING POINT: >300 MELTING POINT: -40 (POUR POINT) SPECIFIC GRAVITY: 0.8833 VOLATILE: NO DATA VAPOR PRESSURE: NEGLIGIBLE VAPORIZATION RATE: BUTYL ACETATE: N/AV VAPOR PRESSURE: N/AV VAPORIZATION RATE: N/AV WHITE LIQUID, SLIGHT HYDROCARBON ODOR. VISCOSITY: .12 (CST @ 104 DEG. F). DIELECTRIC STRENGTH: .30 KV (MIN).

FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD USED: 295 DEG. F (COC) UPPER: N/AV, LOWER: N/AV EXTINGUISHING MEDIA: USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER. SPECIAL FIRE FIGHTING PRECAUTIONS: MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE-SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE-PRESSURE HOSI+APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER. UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE UNUSUAL.

REACTIVITY

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR CONDITIONS AND MATERIALS TO AVOID: HEAT, OPEN FLAMES, AND OXIDIZING MATERIALS. HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID, PARTICULATES

MATERIAL SAFETY DATA SHEET

DIALA OIL AX

MSDS# 016370201

ORDER# 17322 CUSTOMER: TACOMA, WA

AND CASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

EMPLOYEE PROTECTION

~~RESPIRATORY PROTECTION~~ IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. 4) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS AND PARTICULATES. ~~PROTECTIVE CLOTHING~~ WEAR CHEMICAL-RESISTANT GLOVES AND OTHER PROTECTIVE CLOTHING AS REQUIRED TO MINIMIZE SKIN CONTACT. NO SPECIAL EYE PROTECTION IS ROUTINELY NECESSARY. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE BEST PROTECTION IS PROVIDED BY NITRILE GLOVES.

ENVIRONMENTAL PROTECTION

~~SPILL OR LEAK PROCEDURE~~ MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS. *** LARGE SPILLS *** WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY. BAND OR OTHER SUITABLE MATERIAL. DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. SMALL SPILLS: TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY. ~~WATER TREATMENT~~ PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS. ~~WATER TREATMENT~~ THIS PRODUCT IS CLASSIFIED AS AN OIL UNDER SEC. 311 OF THE CLEAN WATER ACT. SPILLS ENTERING (A) SURFACE WATERS OR (B) ANY WATER COURSES OR SEWERS ENTERING/LEADING TO SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802.

SPECIAL PRECAUTIONS

MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. PROPERLY DISPOSE OF CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, THAT CANNOT BE DECONTAMINATED.

TRANSPORTATION REQUIREMENTS

~~D.O.T. CLASSIFICATION~~ IS NOT HAZARDOUS BY D.O.T. REGULATIONS ~~OTHER REQUIREMENTS~~ FOR BARGE SHIPMENTS: USE CARGO INFORMATION CARD SCM 68701, DIALA OIL.

OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES. IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EDS SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS. STATE REGULATORY INFORMATION: THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES: OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS, YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE. STATE LISTED COMPONENT: SEVERELY HYDROTREATED LIGHT NAPHTHENIC DISTILLATE (CAS#: 64742-53-6); PERCENT: 60-70; STATE CODE: MA. MA = MASSACHUSETTS SUBST. LIST. VOLATILE ORGANIC COMPOUNDS (VOC); THIS PRODUCT IS EXEMPT FROM VOC REPORTING UNDER THE CALIFORNIA CLEAN AIR ACT, SECTION 94510 EXEMPTS ORGANIC COMPOUNDS THAT EITHER HAVE A VAPOR PRESSURE OF <0.1 MM HG @ 20 DEG. C OR HAVE MORE THAN 12 CARBON ATOMS. THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. BE SAFE. READ OUR PRODUCT SAFETY INFORMATION...AND PASS IT ON (PRODUCT LIABILITY LAW REQUIRES IT) SHELL OIL COMPANY PRODUCT SAFETY AND COMPLIANCE P. O. BOX 4320 HOUSTON, TX 77210 DATE PREPARED: FEBRUARY 23, 1993 LILYBLAD PETROLEUM, INC., 2244 PORT OF TACOMA RD., TACOMA, WA 98421 SKF

MATERIAL SAFETY DATA SHEET

ALVANIA EP LF GREASE 2

MSDS# 017112515

ORDER# 17322 CUSTOMER: TACOMA, WA

HAZARD RATINGS / EMERGENCY (4 = EXTREME)

* ~~HAZARD~~ SLIGHT (1) * ~~HAZARD~~ SLIGHT (1) * ~~HAZARD~~ SLIGHT (1) * ~~HAZARD~~ SLIGHT (1) * SHELL 713-241-4819 CHEMTREC
800-424-9300 LILYBLAD PET. DIST. 206-572-4402 ~~CHEMTREC~~ HYDROCARBON ~~71125~~ CAS# NUMBER
MIXTURE

INGREDIENT COMPOSITION

~~100%~~ - ALVANIA EP LF GREASE 2 ~~100%~~ - SEVERELY HYDROTREATED HEAVY NAPHTHENIC DISTILLATE (CAS#: 64742-52-5) ~~100%~~ - SOLVENT REFINED, HYDROTREATED RESIDUAL OIL (CAS#: 64742-57-0) ~~100%~~ - LITHIUM HYDROXY STEARATE (CAS#: 7620-77-1) ~~100%~~ - SULFURIZED LARD OIL (CAS#: 61790-49-6) ~~100%~~ - DIBUTYL CARBAMODITHIOLIC ACID METHYLENE ESTER (CAS#: 110-25-8) ~~100%~~ - ZINC NAPHTHENATE (CAS#: 12001-85-3) ~~100%~~ - MINOR ADDITIVES (CAS#: MIXTURE)

HEALTH INFORMATION

ACUTE TOXICITY DATA: SEVERELY HYDROTREATED HEAVY NAPHTHENIC DISTILLATE, CAS#: 64742-52-5: ACUTE ORAL LD50: >5.0 G/KG (RAT); ACUTE DERMAL LD50: >2.0 G/KG (RABBIT); SULFURIZED LARD OIL, CAS#: 61790-49-6: ACUTE ORAL LD50: >16,000 MG/KG (RAT); ACUTE DERMAL LD50: >2,000 MG/KG (RABBIT). THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARDS (29 CFR 1910.1200). EYE CONTACT: LUBRICATING GREASES ARE GENERALLY CONSIDERED NO MORE THAN MINIMALLY IRRITATING TO THE EYES. SKIN CONTACT: LUBRICATING GREASES ARE GENERALLY CONSIDERED NO MORE THAN MILDLY IRRITATING TO THE SKIN. PROLONGED OR REPEATED LIQUID CONTACT CAN RESULT IN DEFATTING AND DRYING OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS. RELEASE DURING HIGH PRESSURE USAGE MAY RESULT IN INJECTION OF GREASE INTO THE SKIN CAUSING LOCAL NECROSIS. INHALATION: NOT EXPECTED TO BE A RELEVANT ROUTE OF EXPOSURE: HOWEVER, UNDER HIGH TEMPERATURE CONDITIONS, VAPORS IRRITATING TO THE NOSE, THROAT AND UPPER RESPIRATORY TRACT MAY BE PRODUCED. INGESTION: LUBRICATING GREASES ARE GENERALLY CONSIDERED NO MORE THAN SLIGHTLY TOXIC IF SWALLOWED. SIGNS AND SYMPTOMS: IRRITATION AS NOTED ABOVE. AGGRAVATED MEDICAL CONDITIONS: PREEXISTING EYE AND SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. SUPPLEMENTAL HEALTH INFORMATION: NONE IDENTIFIED.

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL/TWA: NOT ESTABLISHED.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION. EYE CONTACT: FLUSH EYES WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. SKIN CONTACT: REMOVE CONTAMINATED CLOTHING/SHOES AND WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED. INGESTION: DO NOT INDUCE VOMITING. IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ATTENTION. NOTE TO PHYSICIAN: IN GENERAL, EMESIS INDUCTION IS UNNECESSARY IN HIGH VISCOSITY, LOW VOLATILITY PRODUCTS, I.E., MOST OILS AND GREASES.

PHYSICAL DATA

BOILING POINT (DEGREES F): NOT AVAILABLE MELTING POINT (DEGREES F): 350.6 (DROPPING POINT) SPECIFIC GRAVITY (H2O=1.0): <1.0 VOLATILE BY NATURE: NOT AVAILABLE SOLUBILITY IN WATER: NEGLIGIBLE EVAPORATION RATE (BUTYL ACETATE=1): NOT AVAILABLE VAPOR PRESSURE (MM HG @ 20C): NOT AVAILABLE VAPOR DENSITY (AIR=1.0): NOT AVAILABLE APPEARANCE AND COLOR: DARK TAN TO BROWN SMOOTH GREASE.

FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD USED: 221 DEG. C (PMCC) ~~FLAMMABLE LIMITS~~ EVOLVED IN FIRE: UPPER: N/AV. LOWER: N/AV EXTINGUISHING MEDIA: USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER. SPECIAL FIRE FIGHTING PRECAUTIONS: MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER. ~~HAZARDOUS REACTION~~ HAZARDS: SULFUR OXIDES AND HYDROGEN SULFIDE, BOTH OF WHICH ARE TOXIC, MAY BE RELEASED UPON COMBUSTION.

REACTIVITY

REACTIVITY: STABLE HAZARDOUS REACTIONS WILL NOT OCCUR CONDITIONS AND MATERIALS TO AVOID: AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS. HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID, PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE, SULFUR OXIDES AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVEREXPOSURE. IN ACCORD WITH

MATERIAL SAFETY DATA SHEET

ALVANIA EP LF GREASE 2

MSDS# 017112515

ORDER# 17322 CUSTOMER: TACOMA, WA

29 CFR 1910.134. USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS. ~~EXCESSIVE EXPOSURE~~ AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE BEST PROTECTION IS PROVIDED BY NITRILE GLOVES.

ENVIRONMENTAL PROTECTION

~~SPELL OR LEAK PROCEDURES~~ MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS. *** LARGE SPILLS *** WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY. ~~WASTE DISPOSAL~~ DISPOSE OF PROPERLY.

SPECIAL PRECAUTIONS

MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, APPLYING COSMETICS, OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES INCLUDING SHOES CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED TO PREVENT REUSE.

TRANSPORTATION REQUIREMENTS

~~D.O.T. CLASSIFICATION~~ NOT HAZARDOUS BY D.O.T. REGULATIONS ~~D.O.T. PROPER SHIPPING NAME~~ NONE.

OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES. IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE EDS SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS. STATE REGULATORY INFORMATION: BASED ON INFORMATION AVAILABLE TO SHELL, THIS PRODUCT DOES NOT CONTAIN ANY CHEMICAL SUBSTANCE LISTED ON A CHEMICAL SPECIFIC STATE LIST. THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. BE SAFE - READ OUR PRODUCT SAFETY INFORMATION...AND PASS IT ON (PRODUCT LIABILITY LAW REQUIRES IT). SHELL OIL COMPANY PRODUCT SAFETY AND COMPLIANCE P. O. BOX 4320 HOUSTON, TX 77210 DATE PREPARED: JULY 1, 1991 LILYBLAD PETROLEUM, INC., 2244 PORT OF TACOMA RD., TACOMA, WA 98421 SKP

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:12/30/92

***** I. PRODUCT IDENTIFICATION *****
MOBIL SHC 634

SUPPLIER: MOBIL OIL CORP. 24-HOUR EMERGENCY (CALL COLLECT):
(609) 737-4411
CHEMICAL NAMES AND SYNONYMS: CHEMTREC:
SYN. HYDROCARBONS AND ADDITIVES (800) 424-9300
USE OR DESCRIPTION: PRODUCT AND MSDS INFORMATION:
GEAR AND BEARING LUBRICANT (800) 662-4525

***** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES *****

APPEARANCE: Straw Liquid ODOR: Mild PH: NA
VISCOSITY AT 40 C, CS: > 414.0
VISCOSITY AT 100 C, CS: 46.0
FLASH POINT F(C): > 410(210) (ASTM D-92)
MELTING POINT F(C): NA POUR POINT F(C): -40(-40)
BOILING POINT F(C): > 600(316) VOC: < 5.00(Wt. %); 0.354 lbs/gal
RELATIVE DENSITY, 15/4 C: 0.849 SOLUBILITY IN WATER: Negligible
VAPOR PRESSURE-mm Hg 20C: < .1

NA=Not Applicable NE=Not Established D=Decomposes
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

***** III. POTENTIALLY HAZARDOUS INGREDIENTS *****

None

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

***** IV. HEALTH HAZARD DATA *****

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---
THRESHOLD LIMIT VALUE: 5.00 mg/m3 Suggested for Oil Mist
EFFECTS OF OVEREXPOSURE: Not expected to be a problem.

***** V. EMERGENCY AND FIRST AID PROCEDURES *****

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: Flush thoroughly with water. If irritation persists, call
a physician.

SKIN CONTACT: Wash contact areas with soap and water.

INHALATION: Remove from further exposure. If respiratory irritation,
dizziness, nausea, or unconsciousness occurs, seek immediate
medical assistance and call a physician. If breathing has stopped,
use mouth to mouth resuscitation.

INGESTION: Not expected to be a problem when ingested. If
uncomfortable seek medical assistance.

***** VI. FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT F(C): > 410(210) (ASTM D-92)

FLAMMABLE LIMITS. LEL: .6% UEL: 7.0%

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing.

Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, firefighters must use self-contained breathing apparatus. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

***** VII. REACTIVITY DATA *****

STABILITY (Thermal, Light, etc.): Stable

CONDITIONS TO AVOID: Extreme heat.

INCOMPATIBILITY (Materials to Avoid): Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

***** VIII. SPILL OR LEAK PROCEDURE *****

ENVIRONMENTAL IMPACT: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

WASTE MANAGEMENT: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

***** IX. SPECIAL PROTECTION INFORMATION *****

EYE PROTECTION: Normal industrial eye protection practices should be employed.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.

RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.

VENTILATION: Use in well ventilated area.

***** X. SPECIAL PRECAUTIONS *****

No special precautions required.

***** XI. TOXICOLOGICAL DATA *****

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Nontoxic ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Nontoxic ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not established

EYE IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

***** XII. REGULATORY INFORMATION *****

GOVERNMENTAL INVENTORY STATUS: All components registered in accordance with TSCA.

Transport Information:

DOT:

Shipping Name: Not applicable

Hazard Class: Not applicable

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312 - FORMERLY 302) REPORTABLE HAZARD CATEGORIES: None

This product contains no chemicals reportable under SARA (313) toxic release program.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME CAS NUMBER LIST CITATIONS

*** NO REPORTABLE INGREDIENTS ***

--- REGULATORY LISTS SEARCHED ---

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	21 = LA RTK	26 = RI RTK
		16 = WHMIS		

CARC = CARCINOGEN; SUS = SUSPECTED CARCINOGEN

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

MODII

MOBIL SHC 634

602912-00 Page 4 of 4

***** XIII. INGREDIENTS *****

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
<-----> <--> <----->		
CONTAINS THE FOLLOWING BASE OILS:		
1-DECENE, HOMOPOLYMER, HYDROGENATED	> 95.00	68037-01-4
HEXANEDIOIC ACID, DITRIDECYL ESTER		16958-92-2

***** APPENDIX *****

FOR MOBIL USE ONLY: MHC: O* O* NE O* O*, MPPEC: A, PPEC: , US92-785
APPROVE CCODE:10 11/13/92 REQ: US - MARKETING

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

PREPARED BY: MOBIL OIL CORPORATION

ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ

FOR FURTHER INFORMATION, CONTACT:

MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWES ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265

ADDITIONAL HEALTH DATA COMMENT:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Revision Number: 2 Revision Date: 02/20/93 MSDS Number: 004698
NDA - No Data Available NA - Not Applicable



Date Issued: 12/08/93
Supersedes: 07/24/81

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and Understand Material Safety Data Sheet before handling or disposing of product

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:

* 01860 MARFAK HEAVY DUTY 3 *

Chemical Name and/or Family or Description:
Automotive Greases

Manufacturer's Name and Address:

Texaco Lubricants Company
a Division of Texaco Refining and Marketing Inc.
P.O. Box 4427, Houston, TX 77210-4427

Telephone Numbers:

TRANSPORTATION EMERGENCY Company: (914) 831-3400

CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400

GENERAL MSDS ASSISTANCE (914) 838-7204

TECHNICAL INFORMATION Fuels: (914) 838-7336; Lubricants/Antifreezes: (800) 782-7852
Chemicals: (512) 459-6543

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS:
CHRONIC HAZARDS (CARCINOGENIC, TERATOGENIC, MUTAGENIC, NEUROTOXIC AND SENSITIZERS)
ARE LISTED WHEN PRESENT AT 0.01% OR GREATER; ACUTE HAZARDS ARE LISTED WHEN PRESENT
AT 1.0% OR GREATER AND NON-HAZARDOUS COMPONENTS ARE LISTED WHEN PRESENT AT 3.0% OR
GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE.

Product and/or Component(s) Carcinogenic According to: OSHA IARC NTP OTHER NONE
- - - - X

Composition:

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
Severely refined hydrotreated heavy naph- thenic petroleum distillates	64742525	5mg/m3 OSHA (MIST) 5mg/m3 ACGIH (MIST) 10mg/m3 STEL (MIST)	35.00 - 49.99
Solvent deasphalted residual petroleum oils	64741953	5mg/m3 OSHA (MIST) 5mg/m3 ACGIH (MIST) 10mg/m3 STEL (MIST)	20.00 - 34.99
Sodium tallowate	8052480	None Established	10.00 - 19.99

Product is non-hazardous according to OSHA (1910.1200).

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: Brown, stringy grease; slight odor

WARNING STATEMENT

NONE CONSIDERED NECESSARY

HMIS		NFPA	
Health: 0	Reactivity: 0	Health: 0	Reactivity: 0
Flammability: 1	Special: -	Flammability: 1	Special: -

POTENTIAL HEALTH EFFECTS

Primary Route of Exposure:	EYE	SKIN	INHALATION	INGESTION
	X	X	X	-

N.D. - Not Determined
< - Less Than

N.A. - Not Applicable
> - Greater Than

N.T. - Not Tested



PRODUCT CODE: 01960
PRODUCT NAME: MARFAK HEAVY DUTY 3

Date Issued: 12/08/93
Supersedes: 07/24/91

4. FIRST AID MEASURES (CONT)

Other Instructions:

NOTE TO PHYSICIAN: High pressure injection of material into skin, if not properly treated, can cause severe injury. Most damage occurs during first few hours. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or even require amputation of the affected area. The extent of the injury cannot be determined by examining the wound. X-ray may reveal the presence of gas in tendon sheaths or soft tissue.

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

5. FIRE-FIGHTING MEASURES

Ignition Temp. Degrees F.: N.D. Flash Point Degrees F. (Method): N.D. (grease)
Flammable Limits (%) Lower: N.D. Upper: N.D.

Recommended Fire Extinguishing Agents And Special Procedures:

According to NFPA Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Unusual or Explosive Hazards:
None

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills Call: CHEMTREC (800) 424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:

Contain spill if possible, contain with absorbent materials such as clay or soil, and shovel up. Avoid skin and eye contact.

7. HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage:

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

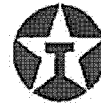
Protective Equipment (Type)

Eye/Face Protection:

Chemical-type goggles or face shield recommended to prevent eye contact.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned at least once a week.



PRODUCT CODE: 01960
PRODUCT NAME: MARFAK HEAVY DUTY 3

Date Issued: 12/08/93
Supersedes: 07/24/91

12. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

REMARKS

None

13. TRANSPORT INFORMATION

TRANSPORTATION

DOT: PROPER SHIPPING NAME: N.D.

IMDG: PROPER SHIPPING NAME: N.D.

IATA: PROPER SHIPPING NAME: N.D.

TDG: PROPER SHIPPING NAME: N.D.

14. REGULATORY INFORMATION

A. SARA TITLE III

Title III Section 302/304 Extremely Hazardous Substance:

Component	CAS No.	Percent	RQ (lbs)	TPQ (lbs)
NONE				

CERCLA Section 102(a) Hazardous Substance

Component	CAS No.	Percent	RQ (lbs)
Sodium hydroxide	1310732	0.10-0.99	1000

Title III Section 311 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
-	-	-	-	-	X

Title III Section 313 Toxic Chemicals

Component	CAS No.	Percent
NONE		

B. WHMIS CLASSIFICATION

NA

C. MICHIGAN CRITICAL MATERIALS

No critical materials present. Maximum usable temperature 275 F.

15. OTHER INFORMATION

None

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT, NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

Page: 5

N.D. - Not Determined
< - Less Than

N.A. - Not Applicable
> - Greater Than

N.T. - Not Tested



PRODUCT CODE: 01960
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18. PRODUCT LABEL

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT

01960 MARFAK HEAVY DUTY 3

WARNING STATEMENT

NONE CONSIDERED NECESSARY

PRECAUTIONARY MEASURES

-Avoid prolonged breathing of mist or vapor in excess of permissible concentrations.
 -Workers should wash exposed skin several times daily with soap and water. Work clothing should be cleaned at least once a week.

FIRST AID

INGESTION:

If more than several mouthfuls have been swallowed, give two glasses of water (16 oz.). Get medical attention.

INHALATION:

If irritation or drowsiness occurs, remove to fresh air.

EYE CONTACT:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

SKIN CONTACT:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

NOTE TO PHYSICIAN:

High pressure injection of material into skin, if not properly treated, can cause severe injury. Most damage occurs during first few hours. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or even require amputation of the affected area. The extent of the injury cannot be determined by examining the wound. X-ray may reveal the presence of gas in tendon sheaths or soft tissue.

FIRE

In case of fire, use foam, dry chemical, or CO2. Use water spray to keep containers cool.

Chemical/Common Name	CAS No.	Range in %
Severely refined hydrotreated heavy naphthenic petroleum distillates	64742525	35.00 - 49.99
Solvent deasphalted residual petroleum oils	64741953	20.00 - 34.99
Sodium tallowate	8052480	10.00 - 19.99

Product is non-hazardous according to OSHA (1910.1200).
 Not classified as a hazardous material by DOT definition.

HMIS

Health : 0 Reactivity : 0
 Flammability: 1 Special : -

National Fire Protection Association

Health : 0 Reactivity : 0
 Flammability: 1 Special : -

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

Manufacturer's Name: Texaco Lubricants Company
 a Division of Texaco Refining and Marketing Inc.
 P.O. Box 4427, Houston, TX 77210-4427

TRANSPORTATION EMERGENCY Company: (914) 831-3400
 CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400



PRODUCT CODE: 01960
PRODUCT NAME: MARFAK HEAVY DUTY 3

Date Issued: 12/08/93
Supersedes: 07/24/91

3. HAZARD IDENTIFICATION (CONT)

Effects of Overexposure

Acute

Eyes:

May cause minimal irritation, experienced as temporary discomfort.

Skin:

No adverse effects expected from absorption of material through the skin.

Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, seen as local redness with possible mild discomfort.

Inhalation:

Product not volatile at ambient temperatures. No adverse effects expected from vapor generated at ambient temperatures.

Ingestion:

No adverse effects expected. If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects anticipated.

Medical Conditions Aggravated by Exposure:

Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

Material from high pressure equipment, pinhole leaks, or high pressure line failure can penetrate the skin and, if not properly treated, can cause severe injury, including disfigurement, loss of function, or even require amputation of the affected area. To prevent such serious injury, immediate medical attention should be sought even if the injection injury appears to be minor.

4. FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls have been swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation or drowsiness occurs, remove to fresh air.



PRODUCT CODE: 01960
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT)

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, use respirator approved by MSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations.

Ventilation:

Adequate to meet component occupational exposure limits (see Section 2).

Exposure Limit for Total Product:

None established for this product; refer to Section 2 for component permissible concentration.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Brown, stringy grease; slight odor	
Boiling Point (Degrees F.):	N.D.	Percent VOC: 100
Specific Gravity:	0.9 (M20=1)	Vapor Density: N.D. Air=1
pH of undiluted product:	N.A.	Solubility in Water: Slight
Vapor Pressure:	Negligible mmhg	
Viscosity:	N.D.	Other: N.D.

10. STABILITY AND REACTIVITY

This Material Reacts Violently With: (If others is checked below, see comments for details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
-	-	-	<u>Y</u>	-	-

Comments:
None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of sodium

	OCCUR	DO NOT OCCUR
Hazardous Polymerizations:	-	<u>X</u>

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose (LD50 LC50) (Species)

Oral: believed to be >5g/kg (rat); practically non-toxic

Inhalation: N.D.

Dermal: believed to be >3 g/kg (rabbit); practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin: believed to be <0.5/8.0 (rabbit); no appreciable effect

Eyes: believed to be <15/110 (rabbit); no appreciable effect

Sensitization: N.D.

Other:

None



PRODUCT CODE: Q1960
PRODUCT NAME: MARFAK HEAVY DUTY 3

Date Issued: 12/08/93
Supersedes: 07/24/91

15. OTHER INFORMATION (CONT)

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Date: 12-08-93 ☐ New ☒ Revised, Supersedes: 07-24-91
Date Printed: 03-18-94

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL



ok

Check on Flash Point

Material Safety Data Sheet

CHEVRON Dura-Lith Grease EP NLGI 2

Page 1 of 7

This Material Safety Data Sheet contains environmental, health and toxicology information for your employees. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information incorporated in your MSDS. Discard any previous edition of this MSDS.

This revision updates Section 1 (Chemical Product and Company Identification), Section 2 (Composition) and Section 5 (Fire Fighting Measures).

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEVRON Dura-Lith Grease EP NLGI 2

PRODUCT NUMBER(S): CPS254595

COMPANY IDENTIFICATION

Chevron USA Products Company
Environmental, Safety, and Health
575 Market St.
San Francisco, CA 94105-2856

EMERGENCY TELEPHONE NUMBERS

CHEMTREC (24 hr):
(800)424-9300 or (202)483-7616

PRODUCT INFORMATION: (800)822-5823 MSDS Requests
(800)582-3835 Technical

Revision Number: 2 Revision Date: 02/20/93 MSDS Number: 004698
NDA - No Data Available NA - Not Applicable

Prepared According to the OSHA Hazard Communication
Standard (29 CFR 1910.1200) by the Chevron Environmental
Health Center, Inc., P.O. Box 4054, Richmond, CA 94804.

irritation. This hazard evaluation is based on data from similar materials.

DERMAL TOXICITY:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin. This hazard evaluation is based on data from similar materials.

High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

RESPIRATORY/INHALATION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if inhaled. This hazard evaluation is based on data from similar materials.

INGESTION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed. This hazard evaluation is based on data from similar materials.

4. FIRST AID MEASURES**EYE CONTACT:**

No first aid procedures are required. However, as a precaution flush eyes with fresh water for 15 minutes. Remove contact lenses if worn.

SKIN CONTACT:

No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

Note to Physician: In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

INHALATION:

Since this material is not expected to be an immediate inhalation problem, no first aid procedures are required.

INGESTION:

If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

Revision Number: 2

Revision Date: 02/20/93

MSDS Number: 004698

NDA - No Data Available

NA - Not Applicable

8. PROTECTIVE EQUIPMENT

PERSONAL PROTECTIVE EQUIPMENT

EYE PROTECTION:

No special eye protection is usually necessary.

SKIN PROTECTION:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

RESPIRATORY PROTECTION:

No special respiratory protection is normally required.

VENTILATION:

No special ventilation is necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Smooth amber grease
ODOR:	NDA
PHYSICAL STATE:	NDA
pH:	NDA
VAPOR PRESSURE:	NA
VAPOR DENSITY	
(AIR=1):	NA
BOILING POINT:	NA
FREEZING POINT:	NDA
MELTING POINT:	NA
SOLUBILITY:	Soluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	0.90@ 15.6/15.6C
DENSITY:	NDA
EVAPORATION RATE:	NA
VISCOSITY:	12 cSt @ 100C (Min.)
PERCENT VOLATILE	
(VOL):	NA

10. TOXICOLOGICAL INFORMATION

EYE IRRITATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

SKIN IRRITATION:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

DERMAL TOXICITY:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

RESPIRATORY/INHALATION:

No product toxicology data available. The hazard evaluation was based on

Revision Number: 2

Revision Date: 02/20/93

MSDS Number: 004698

NDA - No Data Available

NA - Not Applicable

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:06/19/92

***** I. PRODUCT IDENTIFICATION *****
MOBILTEMP 78

SUPPLIER: MOBIL OIL CORP. 24-HOUR EMERGENCY (CALL COLLECT):
(609) 737-4411
CHEMICAL NAMES AND SYNONYMS: CHEMTREC:
PET. HYDROCARBONS AND ADDITIVES (800) 424-9300
USE OR DESCRIPTION: PRODUCT AND MSDS INFORMATION:
HIGH TEMPERATURE GREASE (800) 662-4525

***** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES *****

APPEARANCE: GRAY-BLACK GREASE ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 2448.0 AT 40 C, CS: 460.0
VISCOSITY AT 210 F, SUS: 155.0 AT 100 C, CS: 32.0
FLASH POINT F(C): > 400(204) (ESTIMATED (OIL COC))
MELTING POINT F(C): NA POUR POINT F(C): NA
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.9 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1

NOTE: MOST PHYSICAL PROPERTIES FOR OIL COMPONENT.

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

***** III. POTENTIALLY HAZARDOUS INGREDIENTS *****

	WT PCT (APPROX)	EXPOSURE LIMITS MG/M3 - PPM	SOURCES (AND NOTES)
MOLYBDENUM (IV) SULFIDE (1317-33-5)	1	10 10 10	A-(AS MO-INSL) M-(AS MO-INSL) O-(AS MO-INSL)
GLYCERIN (56-81-5)	1	10 10 10 5	A-TOTAL DUST M O-TOTAL DUST O-RESP. FRACT.

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA, S=SUPPLIER

NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

***** IV. HEALTH HAZARD DATA *****

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---
EFFECTS OF OVEREXPOSURE: NOT EXPECTED TO BE A PROBLEM.

***** V. EMERGENCY AND FIRST AID PROCEDURES *****

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH THOROUGHLY WITH WATER. IF IRRITATION PERSISTS, CALL A PHYSICIAN.

SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER. HIGH PRESSURE ACCIDENTAL INJECTION THROUGH THE SKIN REQUIRES IMMEDIATE MEDICAL ATTENTION FOR POSSIBLE INCISION, IRRIGATION AND/OR DEBRIDEMENT.

INHALATION: NOT EXPECTED TO BE A PROBLEM.

INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER (PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

***** VI. FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT F(C): > 400(204) (ESTIMATED (OIL COC))

FLAMMABLE LIMITS. LEL: NE UEL: NE

EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING.

USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS, SEWERS, OR DRINKING WATER SUPPLY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE.

NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

***** VII. REACTIVITY DATA *****

STABILITY (THERMAL, LIGHT, ETC.): STABLE

CONDITIONS TO AVOID: EXTREME HEAT.

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS: SILICON DIOXIDE. NITROGEN OXIDES.

SULFUR OXIDES. CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

***** VIII. SPILL OR LEAK PROCEDURE *****

ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER (800) 424-8802. IN CASE OF ACCIDENT OR ROAD SPILL NOTIFY CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: ADSORB ON FIRE RETARDANT TREATED SAWDUST, DIATOMACEOUS EARTH, ETC. SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

WASTE MANAGEMENT: PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED, CONTROLLED BURNER FOR FUEL VALUE OR DISPOSAL BY SUPERVISED INCINERATION. SUCH BURNING MAY BE LIMITED PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT. IN ADDITION, THE PRODUCT IS SUITABLE FOR PROCESSING BY AN APPROVED RECYCLING FACILITY OR CAN BE DISPOSED OF AT ANY GOVERNMENT APPROVED WASTE DISPOSAL FACILITY. USE OF THESE METHODS IS SUBJECT TO USER COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS AND CONSIDERATION OF PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

***** IX. SPECIAL PROTECTION INFORMATION *****

EYE PROTECTION: NO SPECIAL EQUIPMENT REQUIRED.

SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.

RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

***** X. SPECIAL PRECAUTIONS *****

NO SPECIAL PRECAUTIONS REQUIRED.

***** XI. TOXICOLOGICAL DATA *****

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 G/KG 0/10 RATS DIED AT THIS DOSAGE LEVEL. CONSIDERED TO BE NO MORE THAN SLIGHTLY TOXIC BASED ON SINGLE DOSE LEVEL TESTING AT 5 G/KG.

DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG 0/10 RABBITS DIED AT THIS DOSAGE LEVEL. CONSIDERED TO BE NO MORE THAN SLIGHTLY TOXIC BASED ON SINGLE DOSE LEVEL TESTING AT 2 G/KG.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): CAUSED NO SIGNIFICANT IRRITATION TO RABBITS.

EYE IRRITATION SCORES: 0 AT 24 HOURS, 0 AT 48 HOURS, 0 AT 72 HOURS

SKIN IRRITATION (RABBITS): NOT IRRITATING TO RABBITS AFTER 4 HOUR CLOSED PATCH CONTACT.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS. DERMAL APPLICATION OF THIS PRODUCT AT DOSES UP TO 2000 MG/KG/DAY FOR 13 WEEKS TO MALE AND FEMALE RATS PRODUCED MINIMAL SKIN IRRITATION, AND VIRTUALLY NO SYSTEMIC TOXICITY.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. CHRONIC MOUSE SKIN PAINTING STUDIES OF SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS. THIS MATERIAL IS NOT A SENSITIZER UNDER THE CONDITIONS OF THE BUHLER(GUINEA PIG) PATCH TEST.

***** XII. REGULATORY INFORMATION *****

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE WITH TSCA.

DOT:

SHIPPING NAME: NOT APPLICABLE
HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D), NOR IS IT FORMULATED TO CONTAIN MATERIALS WHICH ARE LISTED HAZARDOUS WASTES. IT DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY AND IS NOT FORMULATED WITH CONTAMINANTS AS DETERMINED BY THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP). HOWEVER, USED PRODUCT MAY BE REGULATED.

THIS PRODUCT HAS BEEN AUTHORIZED BY USDA FOR USE UNDER THE FOLLOWING CATEGORY: H2 - LUBRICANTS WITH NO FOOD CONTACT

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III: THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312 - FORMERLY 302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS NO CHEMICALS REPORTABLE UNDER SARA (313) TOXIC RELEASE PROGRAM.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
1,2,3-PROPANETRIOL	56-81-5	1, 2, 7, 8, 11, 17
ZINC (ELEMENTAL ANALYSIS) (.03%)	7440-66-6	15
ZINC, BIS(DIPENTYLCARBAMODITHIOATO-S,S)-, (T-4)- (.25%)	15337-18-5	15
QUATERNARY AMMONIUM COMPOUNDS, BIS(HYDROGENATED TALLOW ALKYL)DI-METHYL,CHLORIDES, REACTION PRODUCTS WITH ATTAPULGITE (6.19%)	68953-58-2	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 7 = NFPA 49,
8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK, 11 = IL RTK, 12 = MA RTK,
13 = MN RTK, 14 = NJ RTK, 15 = MI 293, 16 = FL RTK, 17 = PA RTK,
18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

***** XIII. INGREDIENTS *****

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS THE FOLLOWING BASE OILS:	> 90.00	
BASE OILS:		
LUBRICATING OILS (PETROLEUM), C>25		72623-83-7
HYDROTREATED BRIGHT STOCK-BASED		
DISTILLATES (PETROLEUM), SOLVENT		64742-65-0
DEWAXED HEAVY PARAFFINIC		

MOBIL

MOBILTEMP 78

640193-00 PAGE 5 OF 5

QUATERNARY AMMONIUM COMPOUNDS,	< 7.00	68953-58-2
BIS(HYDROGENATED TALLOW ALKYL)		
DIMETHYL, SALTS WITH BENTONITE		
1,2,3-PROPANETRIOL	1.25	56-81-5
MOLYBDENUM SULFIDE	< 1.00	1317-33-5
ZINC, BIS	0.25	15337-18-5
(DIPENTYLCARBAMODITHIOATO-		
S,S')-, (T-4)-		
PHOSPHORIC ACID, TRISODIUM SALT	0.16	7601-54-9

***** APPENDIX *****
 FOR MOBIL USE ONLY: MHC: 1 1 NA 0 0, MPPEC: A, PPEC: A, US89-355
 APPROVE CCODE:7 11/27/90 REQ: US - MARKETING

 INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT
 WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR
 PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT
 ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL
WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF
MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE
USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A
 RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING
 LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING
 PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

PREPARED BY: MOBIL OIL CORPORATION
 ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ
 FOR FURTHER INFORMATION, CONTACT:
 MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
 3225 GALLOWES ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265



Date Issued: 07/24/92
Supersedes: 08/01/91

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:
00958 MARFAK MULTI PURPOSE 2

Chemical Name and/or Family or Description:
Automotive Greases

Manufacturer's Name and Address:
Texaco Lubricants Company
a Division of Texaco Refining and Marketing Inc.
P.O. Box 4427, Houston, TX 77210-4427

Telephone Numbers:
TRANSPORTATION EMERGENCY Company: (914) 831-3400
HEALTH EMERGENCY Company: (914) 831-3400
GENERAL MSDS ASSISTANCE (914) 838-7204
TECHNICAL INFORMATION Fuels: (914) 838-7336; Lubricants/Antifreezes: (914) 838-7509
Chemicals: (512) 459-6543

5. F.T.A.
CHEMTREC: (800) 424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS:
CHRONIC HAZARDS (CARCINOGENIC, TERATOGENIC, MUTAGENIC, NEUROTOXIC AND SENSITIZERS)
ARE LISTED WHEN PRESENT AT 0.01% OR GREATER; ACUTE HAZARDS ARE LISTED WHEN PRESENT
AT 1.0% OR GREATER AND NON-HAZARDOUS COMPONENTS ARE LISTED WHEN PRESENT AT 3.0% OR
GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE.

Product and/or Component(s) Carcinogenic According to: OSHA IARC NTP OTHER NONE
- - - 5 - X

Composition:		CAS No.	Exposure Limit	Range in %
* Lithium 12-hydroxystearate		7620771	NONE ESTABLISHED	3.00 - 10.99
Solvent-dewaxed heavy paraffinic petroleum distillates		64742650	5mg/m3 OSHA (MIST) 5mg/m3 ACGIH (MIST) 10mg/m3 STEL (MIST)	35.00 - 49.99
Solvent deasphalted residual petroleum oil		64741953	5mg/m3 OSHA (MIST) 5mg/m3 ACGIH (MIST) 10mg/m3 STEL (MIST)	35.00 - 49.99

- Product is non-hazardous according to OSHA (1910.1200).
* Component(s) is hazardous according to OSHA or one or more state Right-to-Know laws.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: Dark green semi-solid

WARNING STATEMENT

NONE CONSIDERED NECESSARY

HMIS		NFPA	
Health: 0	Reactivity: 0	Health: 0	Reactivity: 0
Flammability: 1	Special: -	Flammability: 1	Special: -

Page: 1

N.D. - Not Determined
< - Less Than

N.A. - Not Applicable
> - Greater Than

N.T. - Not Tested



PRODUCT CODE: 00958
PRODUCT NAME: MARFAK MULTI PURPOSE 2

Date Issued: 07/24/92
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3. HAZARD IDENTIFICATION (CONT)

B. 2

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	X	-
Effects of Overexposure				

Acute

Eyes:

May cause minimal irritation, experienced as temporary discomfort.

Skin:

No adverse effects expected from absorption of material through the skin.

Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, seen as local redness with possible mild discomfort.

Inhalation:

Product not volatile at ambient temperatures. No adverse effects expected from vapor generated at ambient temperatures.

Ingestion:

No adverse effects expected. If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects anticipated.

Medical Conditions Aggravated by Exposure:

Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

Material from high pressure equipment, pinhole leaks, or high pressure line failure can penetrate the skin and, if not properly treated, can cause severe injury, including disfigurement, loss of function, or even require amputation of the affected area. To prevent such serious injury, immediate medical attention should be sought even if the injection injury appears to be minor.

4. FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls have been swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation or drowsiness occurs, remove to fresh air.

Page: 2

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PRODUCT CODE: Q0958
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Date Issued: 07/24/92
Supersedes: 08/01/91

4. FIRST AID MEASURES (CONT)

12. 0.

Other Instructions:

NOTE TO PHYSICIAN: High pressure injection of material into skin, if not properly treated, can cause severe injury. Most damage occurs during first few hours. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or even require amputation of the affected area. The extent of the injury cannot be determined by examining the wound. X-ray may reveal the presence of gas in tendon sheaths or soft tissue.

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

5. FIRE-FIGHTING MEASURES

Ignition Temp. Degrees F.: N.D. Flash Point Degrees F. (Method): N.D. (grease)
Flammable Limits (%) Lower: N.D. Upper: N.D.

Recommended Fire Extinguishing Agents And Special Procedures:

According to NFPA Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Unusual or Explosive Hazards:

None

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills Call: CHEMTREC (800) 424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:

Contain spill if possible, contain with absorbent materials such as clay or soil, and shovel up. Avoid skin and eye contact.

7. HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage:

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Chemical-type goggles or face shield recommended to prevent eye contact.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.



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PRODUCT NAME: MARFAK MULTI PURPOSE 2

Date Issued: 07/24/92
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT)

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Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, use respirator approved by MSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations.

Ventilation:

Adequate to meet component occupational exposure limits (see Section 2).

Exposure Limit for Total Product:

None established for this product; refer to Section 2 for component permissible concentration.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Dark green semi-solid
Boiling Point (Degrees F.): N.D.
Specific Gravity: N.D. (H₂O=1)
pH of undiluted product: N.A.
Vapor Pressure: Negligible mmHg
Viscosity: N.A.

Percent VOC: 100
Vapor Density: N.A. Air=1
Solubility in Water: Neglig
Other: -

10. STABILITY AND REACTIVITY

This Material Reacts Violently With: (If others is checked below, see comments for details)

Air Water Heat Strong Oxidizers Others None of These

Comments:
None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of lithium.

Hazardous Polymerizations: OCCUR DO NOT OCCUR
- X

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose (LD₅₀ LC₅₀) (Species)

Oral: believed to be >5 g/kg (rat); practically non-toxic

Inhalation: N.D.

Dermal: believed to be >3 g/kg (rabbit); practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin: believed to be <0.5/8.0 (rabbit); no appreciable effect

Eyes: believed to be < 15/110 (rabbit); no appreciable effect

Sensitization: N.D.

Other:
None



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12. DISPOSAL CONSIDERATIONS

16. 7

WASTE DISPOSAL METHODS

READ

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

REMARKS

None

13. TRANSPORT INFORMATION

TRANSPORTATION

DOT: PROPER SHIPPING NAME: N.D.

IMDG: PROPER SHIPPING NAME: N.D.

IATA: PROPER SHIPPING NAME: N.D.

TDG: PROPER SHIPPING NAME: N.D.

14. REGULATORY INFORMATION

A. SARA TITLE III

Title III Section 302/304 Extremely Hazardous Substance:

Component	CAS No.	Percent	RQ (lbs)	TPQ (lbs)
NONE				

CERCLA Section 102(a) Hazardous Substance

Component	CAS No.	Percent	RQ (lbs)
NONE			

Title III Section 311 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
-	-	-	-	-	X

Title III Section 313 Toxic Chemicals

Component	CAS No.	Percent
NONE		

B. WHMIS CLASSIFICATION

Not Regulated

C. MICHIGAN CRITICAL MATERIALS

0.12% lithium.

15. OTHER INFORMATION

None

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

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N.D. - Not Determined
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15. OTHER INFORMATION (CONT)

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT,
USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO
DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Date: 07-24-92 ☐ New ☒ Revised, Supersedes: 08-01-91
Date Printed: 02-05-93

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL

MATERIAL SAFETY DATA SHEET

RECEIVED

UNOCAL 76

APR 20 1993

1201 West 5th Street
Los Angeles, California 90017

AGOW-SEATTLE

Product Name: UNOCAL UNOBA EP GREASE 2
Product Code No: 05455Page 1
Issue Date: 09/04/92
Status: FINAL

<NEW GREEN>

Responsible Party:
UNOCAL PETROLEUM PRODUCTS & CHEMICALS DIV.
REFINING & MARKETING GROUP
UNION OIL COMPANY OF CALIFORNIA
1201 WEST 5TH STREET
LOS ANGELES, CALIFORNIA 90017FOR FURTHER INFORMATION CONTACT:
MSDS COORDINATOR 213-977-7589Transportation Emergencies:
CHEMTREC(800) 424-9300 Cont. U.S.
from Alaska & Hawaii
Health Emergencies:
LOS ANGELES POISON
CONTROL CENTER (24 hrs)
(800) 356-3129

PRODUCT IDENTIFICATION

PRODUCT NAME: UNOCAL UNOBA EP GREASE 2

GENERIC NAME: GREASE

CHEMICAL FAMILY: PETROLEUM HYDROCARBON

DOT PROPER
SHIPPING NAME: NOT APPLICABLE

ID NUMBER: NONE

DOT HAZARD
CLASSIFICATION: NOT REGULATED

PRECAUTIONARY WARNING

LIQUID OR VAPOR MAY IGNITE. KEEP AWAY FROM ALL SOURCES OF IGNITION. DO NOT
PRESSURIZE, CUT, WELD, BRAZE, SOLDER, GRIND OR DRILL ON OR NEAR CONTAINER. "EMPTY"
CONTAINER RETAINS RESIDUE (LIQUID AND/OR VAPOR) AND MAY EXPLODE IN HEAT OF A FIRE.

SECTION I - COMPONENTS PERCENT EXPOSURE LIMIT UNITS AGENCY TYPE

HAZARDOUS COMPONENTS

OIL MIST, IF GENERATED
CAS #: 8012-95-1

5.000	mg/m3	ACGIH	TWA
10.000	mg/m3	ACGIH	STEL
5.000	mg/m3	MSHA	TWA
5.000	mg/m3	OSHA	TWA
5.000	mg/m3	CAL OSHA	TWA

OTHER COMPONENTS

SPENT LUBE OIL, CLAY TREATED
CAS #: 64742-50-3 37.000 - 40.000(SEE OIL MIST EXPOSURE LIMIT)SOLVENT REFINED RESIDUUM
CAS #: 64742-01-4 32.000 - 35.000(SEE OIL MIST EXPOSURE LIMIT)

UNOCAL

Product Name: UNOCAL UNOBA EP GREASE 2
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SECTION I - COMPONENTS -	PERCENT	EXPOSURE LIMIT	UNITS	AGENCY	TYPE
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HYDROTREATED DISTILLATE, HEAVY NAPHTHENIC CAS #: 64742-52-5	12.000 - 15.000	(SEE OIL MIST EXPOSURE LIMIT)			
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TRADE SECRET CAS #: PROPRIETARY	10.000 - 19.000				NOT ESTABLISHED
------------------------------------	-----------------	--	--	--	-----------------

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING
REQUIREMENTS OF SARA 313 AND 40 CFR 372:

CAS NUMBER	WEIGHT %
------------	----------

--NONE--

SECTION II - EMERGENCY AND FIRST AID PROCEDURES ***EMERGENCY***
Have physician call LOS ANGELES POISON
CONTROL CENTER (24 hrs) (800) 356-3129

EYE CONTACT:

IF IRRITATION OR REDNESS DEVELOPS, MOVE VICTIM AWAY FROM EXPOSURE AND INTO FRESH AIR.
FLUSH EYES WITH CLEAN WATER. IF SYMPTOMS PERSIST, SEEK MEDICAL ATTENTION.

SKIN CONTACT:

WIPE MATERIAL FROM SKIN AND REMOVE CONTAMINATED SHOES AND CLOTHING. CLEANSE AFFECTED
AREA(S) THOROUGHLY BY WASHING WITH MILD SOAP AND WATER AND, IF NECESSARY, A WATERLESS
SKIN CLEANSER. IF IRRITATION OR REDNESS DEVELOPS AND PERSISTS, SEEK MEDICAL
ATTENTION.

INHALATION (BREATHING):

SINCE THE VAPOR PRESSURE IS LOW, VAPOR INHALATION UNDER AMBIENT CONDITIONS IS
UNLIKELY. IF OVERCOME BY VAPOR FROM HOT PRODUCT, MOVE VICTIM AWAY FROM SOURCE OF
EXPOSURE AND INTO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION. IF VICTIM
IS NOT BREATHING, ARTIFICIAL RESPIRATION SHOULD BE ADMINISTERED. IF BREATHING
DIFFICULTIES DEVELOP, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. SEEK
IMMEDIATE MEDICAL ATTENTION.

INGESTION (SWALLOWING):

IF SWALLOWED, SEEK MEDICAL ATTENTION. IF VICTIM IS DROWSY OR UNCONSCIOUS, PLACE ON
THE LEFT SIDE WITH THE HEAD DOWN. DO NOT GIVE ANYTHING BY MOUTH. IF POSSIBLE, DO NOT
LEAVE VICTIM UNATTENDED.

COMMENTS:

HIGH PRESSURE GREASE GUN INJURIES MAY PRODUCE SUBSTANTIAL NECROSIS OF UNDERLYING
TISSUE DESPITE AN INNOCUOUS APPEARING EXTERNAL WOUND. OFTEN THESE INJURIES REQUIRE
EXTENSIVE EMERGENCY SURGICAL DEBRIDEMENT AND ALL INJURIES SHOULD BE EVALUATED BY A
SPECIALIST IN ORDER TO ASSESS THE EXTENT OF INJURY.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

EYE CONTACT:

THIS MATERIAL MAY CAUSE MILD EYE IRRITATION. DIRECT CONTACT WITH THE LIQUID OR
EXPOSURE TO VAPORS OR MISTS MAY CAUSE STINGING, TEARING AND REDNESS.

SKIN CONTACT:

THIS MATERIAL MAY CAUSE MILD SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY CAUSE
REDNESS, BURNING, AND DRYING AND CRACKING OF THE SKIN. NO HARMFUL EFFECTS ARE EXPECTED
FROM SKIN ABSORPTION OF THIS MATERIAL. PERSONS WITH PRE-EXISTING SKIN DISORDERS MAY BE
MORE SUSCEPTIBLE TO THE EFFECTS OF THIS MATERIAL.

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Product Name: UNOCAL UNOBA EP GREASE 2
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SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY**INHALATION (BREATHING):**

INHALATION OF THIS MATERIAL IS UNLIKELY.

INGESTION (SWALLOWING):

WHILE THIS MATERIAL HAS A LOW DEGREE OF TOXICITY, INGESTION OF EXCESSIVE QUANTITIES MAY CAUSE IRRITATION OF THE DIGESTIVE TRACT.

COMMENTS:

THIS MATERIAL HAS NOT BEEN IDENTIFIED AS A CARCINOGEN BY NTP, IARC OR OSHA. HIGH PRESSURE GREASE GUN INJURY CAN CAUSE SERIOUS DELAYED SOFT TISSUE DAMAGE.

SECTION IV - SPECIAL PROTECTION INFORMATION**VENTILATION:**

IF CURRENT VENTILATION PRACTICES ARE NOT ADEQUATE TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I), ADDITIONAL VENTILATION OR EXHAUST SYSTEMS MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURES MAY BE PRESENT, ELECTRICAL SYSTEMS SAFE FOR SUCH LOCATIONS MUST BE USED.

RESPIRATORY PROTECTION:

THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED THE ESTABLISHED EXPOSURE LIMITS (SEE SECTION I). DEPENDING ON THE AIRBORNE CONCENTRATION, USE A RESPIRATOR OR GAS MASK WITH APPROPRIATE CARTRIDGES AND CANNISTERS (NIOSH APPROVED, IF AVAILABLE) OR SUPPLIED AIR EQUIPMENT.

PROTECTIVE GLOVES:

THE USE OF GLOVES IMPERMEABLE TO THE SPECIFIC MATERIAL HANDLED IS ADVISED TO PREVENT SKIN CONTACT AND POSSIBLE IRRITATION.

EYE PROTECTION:

APPROVED EYE PROTECTION TO SAFEGUARD AGAINST POTENTIAL EYE CONTACT, IRRITATION OR INJURY IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

IT IS SUGGESTED THAT A SOURCE OF CLEAN WATER BE AVAILABLE IN THE WORK AREA FOR FLUSHING EYES AND SKIN. IMPERVIOUS CLOTHING SHOULD BE WORN AS NEEDED.

SECTION V - REACTIVITY DATA**REACTIVITY:**

STABLE UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING.

CONDITIONS AFFECTING REACTIVITY:

EXTENDED EXPOSURE TO HIGH TEMPERATURES MAY CAUSE DECOMPOSITION.

INCOMPATIBLE MATERIALS:

AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

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SECTION V - REACTIVITY-DATA		
<u>HAZARDOUS DECOMPOSITION PRODUCTS:</u> COMBUSTION MAY YIELD MAJOR AMOUNTS OF OXIDES OF CARBON AND MINOR AMOUNTS OF OXIDES OF SULFUR AND NITROGEN.		
<u>HAZARDOUS POLYMERIZATION:</u> WILL NOT OCCUR		
<u>POLYMERIZATION CONDITIONS TO AVOID:</u> NONE KNOWN		
SECTION VI - SPILL AND LEAK PROCEDURES ***HIGHWAY OR RAILWAY SPILLS*** Call CHEMTREC (800) 424-9300 Cont. U.S. (Collect) (202) 483-7616 from Alaska & Hawaii		
<u>PRECAUTIONS IN CASE OF RELEASE OR SPILL:</u> MAY IGNITE. KEEP ALL SOURCES OF IGNITION AWAY FROM SPILL/RELEASE. STAY UPWIND AND AWAY FROM SPILL/RELEASE. ISOLATE HAZARD AREA AND LIMIT ENTRY TO AUTHORIZED PERSONNEL. STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). PREVENT SPILLED MATERIAL FROM ENTERING SEWERS, STORM DRAINS, OTHER UNAUTHORIZED TREATMENT/DRAINAGE SYSTEMS AND NATURAL WATERWAYS. NOTIFY APPROPRIATE FEDERAL, STATE AND LOCAL AGENCIES. CLEANUP UNDER EXPERT SUPERVISION IS ADVISED. IF SPILL OF ANY AMOUNT IS MADE INTO OR UPON U.S. NAVIGABLE WATERS, THE CONTIGUOUS ZONE, OR ADJOINING SHORELINES, NOTIFY THE NATIONAL RESPONSE CENTER (PHONE NUMBER 800-424-8802).		
<u>WASTE DISPOSAL METHOD:</u> DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.		
SECTION VII - STORAGE AND SPECIAL PRECAUTIONS		
<u>HANDLING AND STORAGE PRECAUTIONS:</u> USE AND STORE THIS MATERIAL IN COOL, DRY, WELL VENTILATED AREAS AWAY FROM HEAT AND ALL SOURCES OF IGNITION. KEEP CONTAINER(S) CLOSED. STORE ONLY IN APPROVED CONTAINERS. KEEP AWAY FROM ANY INCOMPATIBLE MATERIALS (SEE SECTION V). PROTECT CONTAINER(S) AGAINST PHYSICAL DAMAGE. DO NOT ENTER CONFINED SPACES SUCH AS TANKS OR PITS WITHOUT FOLLOWING PROPER ENTRY PROCEDURES SUCH AS ASTM D-4276. THE USE OF RESPIRATORY PROTECTION IS ADVISED WHEN CONCENTRATIONS EXCEED ANY ESTABLISHED EXPOSURE LIMITS (SEE SECTIONS I AND IV). WASH THOROUGHLY AFTER HANDLING. DO NOT WEAR CONTAMINATED CLOTHING OR SHOES. USE GOOD PERSONAL HYGIENE PRACTICE. "EMPTY" CONTAINERS RETAIN RESIDUE (LIQUID AND/OR VAPOR) AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. "EMPTY" DRUMS SHOULD BE COMPLETELY DRAINED, PROPERLY BUNGED AND PROMPTLY SHIPPED TO THE SUPPLIER OR A DRUM RECONDITIONER. ALL OTHER CONTAINERS SHOULD BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. BEFORE WORKING ON OR IN TANKS WHICH CONTAIN OR HAVE CONTAINED THIS PRODUCT, REFER TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ANSI Z49.1, AND OTHER GOVERNMENTAL AND INDUSTRIAL REFERENCES PERTAINING TO CLEANING, REPAIRING, WELDING, OR OTHER CONTEMPLATED OPERATIONS.		

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SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

NFPA	HEALTH HAZARD: 0	HAZARD RANKING	FLASH POINT
HAZARD	FLAMMABILITY: 1	0 = LEAST	
CLASS	REACTIVITY: 0	1 = SLIGHT	420-438 F (COC)
	OTHER:	2 = MODERATE	216-226 C
		3 = HIGH	
		4 = EXTREME	

EXTINGUISHING MEDIA:

DRY CHEMICAL, FOAM, WATER OR SAND IS RECOMMENDED.

UNUSUAL FIRE & EXPLOSION HAZARDS:

THIS MATERIAL MAY BURN, BUT WILL NOT IGNITE READILY.

SPECIAL FIRE FIGHTING PROCEDURES:

WEAR APPROPRIATE PROTECTIVE EQUIPMENT INCLUDING RESPIRATORY PROTECTION AS CONDITIONS WARRANT (SEE SECTION IV). STOP SPILL/RELEASE IF IT CAN BE DONE WITHOUT RISK. MOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT CAN BE DONE WITHOUT RISK. WATER SPRAY MAY BE USEFUL IN MINIMIZING OR DISPERSING VAPORS AND COOLING EQUIPMENT EXPOSED TO HEAT AND FLAME.

SECTION IX - PHYSICAL DATA

***UNLESS OTHERWISE NOTED, VALUES ARE AT
20 C/68 F AND 760 mm Hg/1 atm.

<u>APPROX. BOILING POINT</u>	<u>(AIR = 1) VAPOR DENSITY</u>	<u>(N-BUTYL ACETATE = 1) EVAPORATION RATE</u>	<u>% VOLATILE</u>
>600 F / 316 C	>1	<1	NEGLECTIBLE

% SOLUBILITY IN WATER

NEGLECTIBLE

APPROX. BULK DENSITY (LB/GAL)

7.2

APPEARANCE

GREEN BUTTERY GREASE

ODOR

CHARACTERISTIC PETROLEUM

SECTION X - DOCUMENTARY INFORMATION

ISSUE DATE: 09/04/92 PRODUCT CODE NO. 05455
PREV. DATE: 06/21/90 PREV. PROD. CODE NO. NONE
MSDS NO: NONE PREV. MSDS NO: NONE

UNOCAL

Product Name: UNOCAL UNOBA EP GREASE 2
Product Code No: 05455

Page 6
Issue Date: 09/04/92
Status: FINAL

SECTION X - DOCUMENTARY INFORMATION

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

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MATERIAL SAFETY DATA SHEET

KEYSTONE LUBRICANTS
5 NORTH STILES STREET
LINDEN, N.J. 07036

REVISION DATE
15-SEP-93

DATE ISSUED
30-NOV-93

IDENTIFICATION AND EMERGENCY INFORMATION

KEYSTONE PRODUCT NAME: MOLY 29	KEYSTONE PRODUCT #: A1A921K and 2429
CHEMICAL NAME: N/A - Mixture	CAS #'S: Mixture
PRODUCT APPEARANCE AND ODOR: Black, viscous, slight chemical odor	CHEMICAL FAMILY: Synthetic hydrocarbon
SYNONYMS: Open Gear Grease	EMERGENCY TELEPHONE: (908) 862-9300

COMPONENTS AND HAZARD INFORMATION

COMPONENTS:	W/W	HAZARD DATA (TLU, LD50, LC50, ETC.):
Polybutene CAS # 9003-29-6		n/e
Carbon Black CAS # 1333-86-4		TLU-TWA 3.5mg/meter cubed (as a dust)
Natural Graphite CAS # 7782-42-5		ACGIH TLU 2.5 mg/meter cubed (as a dust)
Molybdenum Disulfide CAS # 1317-33-5		TLU 10mg/meter cubed (as a dust)

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

Health	Flammability	Reactivity
1	1	0

TRANSPORTATION INFORMATION

TRANSPORTATION INCIDENT INFORMATION:

ICC: Compound or lubricant. Metal cutting, drawing or drilling.
Dry, liquid or paste. NOI

EMERGENCY FIRST AID

EYE CONTACT:

If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

EMERGENCY FIRST AID

SKIN CONTACT:

In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water.

INHALATION:

Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen if available. If overexposure to oil mist, remove from further exposure until excessive oil mist condition subsides.

INGESTION:

If ingested, do not induce vomiting. Call a physician immediately.

FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM):

>368°F Test method: COC

AUTOIGNITION TEMPERATURE:

N/E

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION:

Health	Flammability	Reactivity	Basis
1	1	0	---

FLAMMABLE OR EXPLOSIVE LIMITS (approximate percent by volume in air):

Estimated values: lower n/e upper n/e

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES:

Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type product, depending on size or potential size of fire and circumstance related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Eighth Edition (1984):

Use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water froth may be used to flush spills away from exposure. Minimize breathing gases, vapor, fumes, or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

n/a

"EMPTY" CONTAINER WARNING:

Empty containers retain residue (liquid or vapor) and can be dangerous. DO NOT PRESSURIZE, WELD, CUT BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged, and returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with

FIRE AND EXPLOSION HAZARD INFORMATION

Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

HEALTH AND HAZARD INFORMATION

EXPOSURE LIMIT FOR TOTAL PRODUCT:

5 mg/cubic meter for oil mist in air

BASIS:

OSHA Regulation 29 CFR 1910.1000

VARIABILITY AMONG INDIVIDUALS:

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure):

Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria. Product contacting the eye may cause irritation.

Product has a low order of oral and dermal toxicity. Possible aspiration hazard. Induced vomiting may cause aspiration of product into the lungs. (See Emergency First Aid Section).

PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE:

Wide range

VAPOR PRESSURE:

< 0.1 @ 38°C/100°F

SPECIFIC GRAVITY (25°C/25°C):

(WATER = 1)

> 1.0

VAPOR DENSITY (AIR = 1):

> 8

MOLECULAR WEIGHT:

Wide range

PERCENT VOLATILE BY VOLUME:

Negligible

EVAPORATION RATE @ 1 ATM. AND 25°C

(77°F) (n-BUTYL ACETATE = 1):

< 1.0

SOLUBILITY IN WATER @ 1 ATM. and 25°C

(77°F):

Negligible

POUR, CONGEALING OR MELTING POINT:

n/e

FREEZING POINT:

n/e

REACTIVITY

This product is stable and will NOT react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

REACTIVITY

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:

Fumes, smoke, carbon monoxide, oxides of sulfur, and other decomposition products, in case of incomplete combustion.

CONDITIONS TO AVOID:

Open flames.

TOXICITY

ORAL (Acute)	LD 50 > 5 g/kg (total body weight)
DERMAL (Acute)	LD 50 > 3.16 g/kg (total body weight)
EYE	N/E
INHALATION (Acute)	N/E
CHRONIC, SUBCHRONIC, ETC.	N/E

Medical Conditions Aggravated by Exposure: Unknown

This product does NOT contain any ingredients identified as carcinogenic by IRAC, NTP, or OSHA.

SARA Section 313 Status:

This material is not known to contain any chemicals on the SARA Section 313 list at a concentration greater than 1.0 percent or carcinogenic chemical on that list at a concentration greater than 0.1 percent.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Keep product out of sewers and watercourses by diking or impounding. Absorb with sand or inert material. Sweep or scoop up and remove. Prevent spread of spill. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with local regulations.

WASTE DISPOSAL METHOD: (Consult federal, state, or local authorities for proper disposal procedures.)

Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste site or facility.

PROTECTION AND PRECAUTIONS

VENTILATION: (Always maintain below permissible exposure limits.)

Use local exhaust to capture vapor, mist or fumes, if necessary. Provide greater than 60 feet per minute hood face velocity for confined spaces. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

RESPIRATORY PROTECTION: (Use only NIOSH approved equipment.)

Normally not needed at ambient temperatures. Use supplied air respiratory protection in confined or enclosed spaces, if needed. Use filter, dust, fume, or mist respirator type under misting conditions. Use can or cartridge gas or vapor respirator type under conditions exceeding TWA standard.

PROTECTION AND PRECAUTIONS

PROTECTIVE GLOVES:

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION:

Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT:

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

WORK PRACTICES/ENGINEERING CONTROLS:

Keep containers closed when not in use. Do not handle near heat, sparks, flame or strong oxidants.

PERSONAL HYGIENE:

Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

PREPARED BY: PETER KONOPI MANAGER OF QUALITY ASSURANCE

THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER, SINCE DATA, SAFETY STANDARDS, AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE AND THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, SELLER MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. USER SHOULD SATISFY HIMSELF THAT HE HAS ALL CURRENT DATA RELEVANT TO HIS PARTICULAR USE.

THIX-O-GEAR

***** VI. REACTIVITY DATA *****

STABILITY - Stable
CONDITIONS TO AVOID - None known
INCOMPATIBILITY (Materials to Avoid) - Strong Oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS - Carbon Monoxide, Carbon Dioxide
HAZARDOUS POLYMERIZATION - Will not occur
CONDITIONS TO AVOID - None known

***** VII. PRECAUTIONS FOR SAFE HANDLING AND USE *****

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED - Clean up mechanically
WASTE DISPOSAL METHOD - Federal, State and/or Local approved disposal.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - Normal for greases
OTHER PRECAUTIONS - None

***** VIII. CONTROL MEASURES *****

RESPIRATORY PROTECTION - None
VENTILATION - N/A
PROTECTIVE GLOVES - Not required
EYE PROTECTION - Not required
OTHER PROTECTIVE EQUIPMENT - Not required
WORK/HYGIENIC PRACTICES - Observe good personal hygiene practice when handling this material.

***** IX. TRANSPORTATION DATA *****

DOT SHIPPING NAME - N/A DOT HAZARD CLASS - N/A
UN/NA NUMBER - N/A DOT LABEL(S) - N/A
FREIGHT CLASSIFICATION - Petroleum, lubricating grease

* * * * *

FOR ADDITIONAL INFORMATION CONTACT: Regulatory Affairs Office
Texas Refinery Corp.
One Refinery Place
Fort Worth, TX 76101
(817) 332-1161 Ext. 333

* * * * *

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MATERIAL SAFETY DATA SHEET

TEXAS REFINERY CORP.

One Refinery Place

Fort Worth, Texas 76101

(817) 332-1161

24 Hr. Emergency Telephone No.: CHEMTREC 800-424-9300

Date - January, 1995

OBSOLETE - August, 1994

***** I. PRODUCT IDENTIFICATION *****

TRADE NAME - Thix-O-Gear

CHEMICAL FAMILY - Petroleum Compounds

PRODUCT CODE: 8237

***** II. HAZARDOUS INGREDIENTS *****

1. Titanium Dioxide
CAS# 13463-67-7 PEL: 10mg/m³ (dust) TLV: 10mg/m³ (dust) WT.% 15-25
2. Heavy paraffinic distillates₃ (petroleum)
CAS# 64742-54-7 PEL: 5mg/m³ (mist) TLV: 5mg/m³ (mist) WT.% 40-55

NOTE: Under normal conditions of use, the oil in this product cannot be misted or dusted, therefore, should pose no health problem.

***** III. PHYSICAL/CHEMICAL DATA *****

~~BOILING POINT (°F): 450 F~~ SPECIFIC GRAVITY (H₂O=1): 0.8691
VAPOR PRESSURE (mm Hg): < 1 PERCENT VOLATILE BY VOL.: Negligible
VAPOR DENSITY (Air=1): < 1 SOLUBILITY IN WATER: Negligible
EVAPORATION RATE (Butyl Acetate=1): N/A
APPEARANCE AND ODOR - Yellow-White tacky paste-like; petroleum odor

***** IV. FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT: > 500 F. (COC)
FLAMMABLE LIMITS: Not Determined
EXTINGUISHING MEDIA: Foam, Dry Chemical, CO₂
SPECIAL FIRE FIGHTING PROCEDURES: Use air-supplied breathing equipment for enclosed areas. Cool exposed containers with water spray.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not store with strong oxidants.
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA):
HEALTH: 0 FLAMMABILITY: 1 REACTIVITY: 0

***** V. HEALTH HAZARD DATA *****

TLV/PEL: See Section II
PRINCIPAL ROUTES OF EXPOSURE - Eyes and Skin
CARCINOGENS - None known
EFFECTS OF OVEREXPOSURE - Prolonged contact may cause mild skin and eye irritation.
EMERGENCY AND FIRST AID PROCEDURES - Flush eyes with large amounts of water for at least 15 minutes. Wash skin with soap and water. In case of ingestion, DO NOT induce vomiting, seek medical attention immediately.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - Unknown
NOTES TO PHYSICIAN - None

026

M A T E R I A L S A F E T Y D A T A S H E E T

TEXAS REFINERY CORP.
One Refinery Place
Fort Worth, Texas 76101
(817) 332-1161
24 Hr. Emergency Telephone No.: CHEMTREC 800-424-9300

Date - February, 1995
Supercedes - September, 1994

***** I. PRODUCT IDENTIFICATION *****

TRADE NAME - Wheel Bearing Grease
CHEMICAL FAMILY - Petroleum Oil & Soap

PRODUCT CODE: 8055

***** II. HAZARDOUS INGREDIENTS *****

1. Petroleum Oil (oil mist)
PEL: 5mg/m³ TLV: 5mg/m³ WT.% > 84
 2. Soap and Additives
PEL: Not Established TLV: Not Established WT.% < 16
- Ingredients are proprietary. Potential hazards have been evaluated and pertinent information has been included in Section IV through VIII.

***** III. PHYSICAL/CHEMICAL DATA *****

BOILING POINT(°F): N/A SPECIFIC GRAVITY (H₂O=1): 0.93
VAPOR PRESSURE (mm Hg): N/A PERCENT VOLATILE BY VOL.: N/A
VAPOR DENSITY (Air=1): N/A SOLUBILITY IN WATER: Insoluble
EVAPORATION RATE (Butyl Acetate=1): N/A
APPEARANCE AND ODOR - Dark Amber with mild petroleum odor.

***** IV. FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT: 425 F. min. (COC) (oil portion)
FLAMMABLE LIMITS: N/A
EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical or Foam
SPECIAL FIRE FIGHTING PROCEDURES: Use air-supplied breathing equipment for enclosed areas. Water stream may spread fire, use water spray only to cool containers exposed to fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Will not flash spontaneously. May ignite if exposed to open flame.
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA):
HEALTH: 0 FLAMMABILITY: 1 REACTIVITY: 0

***** V. HEALTH HAZARD DATA *****

TLV/PEL: Not Established - See Section II
PRINCIPAL ROUTES OF EXPOSURE - Skin
CARCINOGENS - None known
EFFECTS OF OVEREXPOSURE - May cause possible eye irritation with repeated or prolonged contact. Possible skin irritation with repeated or prolonged contact. Primary hazard associated with grease in high pressure gun. If injected under the skin, necrosis could result. Ingestion may cause possible irritation, nausea or diarrhea.

WHEEL BEARING GREASE

EMERGENCY AND FIRST AID PROCEDURES - Immediately flush eyes with water for at least minutes, occasionally lifting the lower and upper lids. Get medical attention if redness or irritation occurs. Wash skin with soap and water. If grease is injected under the skin, get medical attention as soon as possible. In case of ingestion, DO NOT induce vomiting. Seek medical advice.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - Not Determined

NOTES TO PHYSICIAN - None

***** VI. REACTIVITY DATA *****

STABILITY - Stable

CONDITIONS TO AVOID - None known

INCOMPATIBILITY (Materials to Avoid) - Strong Oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS - Incomplete combustion can yield carbon monoxide and various hydrocarbons.

HAZARDOUS POLYMERIZATION - Will not occur

CONDITIONS TO AVOID - None known

***** VII. PRECAUTIONS FOR SAFE HANDLING AND USE *****

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED - Pick up and place in container for disposal.

WASTE DISPOSAL METHOD - Federal, State and/or Local approved disposal. Utilize permitted industrial waste disposal site.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE - Do not store with strong oxidants.

OTHER PRECAUTIONS - None

***** VIII. CONTROL MEASURES *****

RESPIRATORY PROTECTION - Not required under normal conditions. See Section IV.

VENTILATION - N/A

PROTECTIVE GLOVES - Nitrile or neoprene gloves for prolonged contact

EYE PROTECTION - Safety glasses, chemical goggles, or faceshield as appropriate for exposure

OTHER PROTECTIVE EQUIPMENT - Not required

WORK/HYGIENIC PRACTICES - Observe good personal hygiene practice when handling this grease.

***** IX. TRANSPORTATION DATA *****

DOT SHIPPING NAME - N/A

DOT HAZARD CLASS - N/A

UN/NA NUMBER - N/A

DOT LABEL(S) - N/A

FREIGHT CLASSIFICATION - Petroleum, lubricating grease

* * * * *

FOR ADDITIONAL INFORMATION CONTACT: Regulatory Affairs Office
Texas Refinery Corp.
One Refinery Place
Fort Worth, TX 76101
(817) 332-1161 Ext. 333

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The StateTM CHEMICAL MANUFACTURING CO.

HEAD OFFICE AND PLANT: CLEVELAND, OHIO 44114-5700
SALES OFFICES / DISTRIBUTION CENTERS WORLDWIDE

MATERIAL SAFETY DATA SHEET

STATE 999

Description:

A formulated water-based all purpose cleaner

I. SHIPPING INFORMATION

D.O.T. Shipping Name: N/A
D.O.T. Hazard Class: N/A
D.O.T. ID No: N/A
D.O.T. Label: N/A

II. HAZARDOUS INGREDIENTS

Material	Weight %	TLV
2-butoxyethanol (CAS #111-76-2)	< 4%	25 ppm (skin)
Trisodium Phosphate (CAS #10101-89-0)	< 5%	N/A
Sodium Metasilicate (CAS #6834-92-3)	< 3%	N/A
Nitrotriacetic Acid, Trisodium Salt (CAS #18662-63-8)	< 3%	N/A

This product contains 2-butoxyethanol (glycol ether) which is a toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a substance known to the State of California to cause cancer.

All components of this product are listed on the TSCA inventory

III. PHYSICAL DATA

Boiling Point(F°): 218°F
Specific Gravity(Water=1): 1.080 +/- 0.003
Volatile By Weight(%): APPROX. 84
Weight Per Gallon(pounds): 9.04 lbs.
Solubility In Water: Complete.
pH: 12.5
Appearance & Odor: A clear blue liquid with bouquet odor.

IV. FIRE & HAZARD DATA

Flashpoint (Method Used): None to 200°F (C.O.C. & T.C.C.)
Extinguishing Media: N/A
Special Fire Fighting Procedures: None
Unusual Fire & Explosion Hazards: None

V. HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: May be harmful if swallowed.
Direct eye contact will cause mild irritation.
CHRONIC EFFECTS: Based on tests with laboratory rats and mice, the National Toxicology Program (NTP) lists nitrotriacetic acid (NTA) as a suspect carcinogen. There is no evidence that NTA is a human carcinogen. Chronic exposure to 2-butoxyethanol can cause blood abnormalities; lung, liver, kidney or central nervous system damage.

FIRST AID PROCEDURES:

If Swallowed: Contact a physician or poison control center immediately.
If Inhaled: N/A
If In Eyes: Flush eyes immediately with plenty of cool water for at least 15 minutes. If irritation persists, contact a physician.
If on Skin: Flush with water

VI. REACTIVITY DATA

Stability: Stable.
Conditions to avoid: Application through a steam cleaner.
Incompatibility(Materials to avoid): None
Hazardous Decomposition Products: Exposure to high temperatures may produce carbon dioxide, carbon monoxide, water and traces of oxide of phosphorous and aliphatic compounds.

HAZARDOUS POLYMERIZATION WILL NOT OCCUR

VII. SPILL OR LEAK PROCEDURES

Steps To Be Taken If Material Is Released Or Spilled: Flush with plenty of water.
Waste Disposal Method: Do not reuse empty containers for any purpose. Flush thoroughly with water, crush or perforate and discard, or give rinsed drums to a drum reconditioner for recycling. Be sure pH of waste stream is below 12.5. If this is true, dispose of as a nonhazardous waste.
Follow All Federal, State and Local Regulations Regarding Waste Disposal.

VIII. SPECIAL PROTECTION INFORMATION

Eye protection and protective gloves are recommended any time you work with any concentrated industrial strength products.

Respiratory Protection: No special protection required.
Ventilation: Normal ventilation is adequate.
Protective Gloves: Recommended.
Eye Protection: Recommended.
Other Protective Equipment: An eyewash station or source of clean water should be nearby in case of accidental eye contact.

IX. SPECIAL PRECAUTIONS

Precautions To Be Taken In Handling And Storage: Avoid temperatures below freezing. Keep containers tightly closed when not in use.

OTHER PRECAUTIONS: CAUTION: Avoid contact with eyes. If accidentally splashed in the eyes, immediately flush with plenty of water for at least 15 minutes. If irritation persists, seek medical attention. Do not reuse any empty containers for any purpose.
NOTE: A cleaning solution too concentrated can have a dulling effect on certain paints and inexpensive-grade varnishes. It is recommended to try the cleaning solution first on a small area before using.

HMIS/NFPA RATINGS: Health 2 Flammability 1
Reactivity 0

Read and follow all label directions and precautions before using the product. These products are intended for industrial and institutional use only.

NOT FOR HOUSEHOLD USE OR RESALE. KEEP OUT OF THE REACH OF CHILDREN

While we believe that the data contained herein is factual and the opinion expressed are those of qualified experts, the data are not to be taken as a warranty or representation for which the company assumes legal responsibility. They are offered solely for your consideration, investigation, and verification. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and Local Laws and regulations.

HEALTH AND SAFETY INFORMATION

(216) 861-7114

NOVEMBER 1994